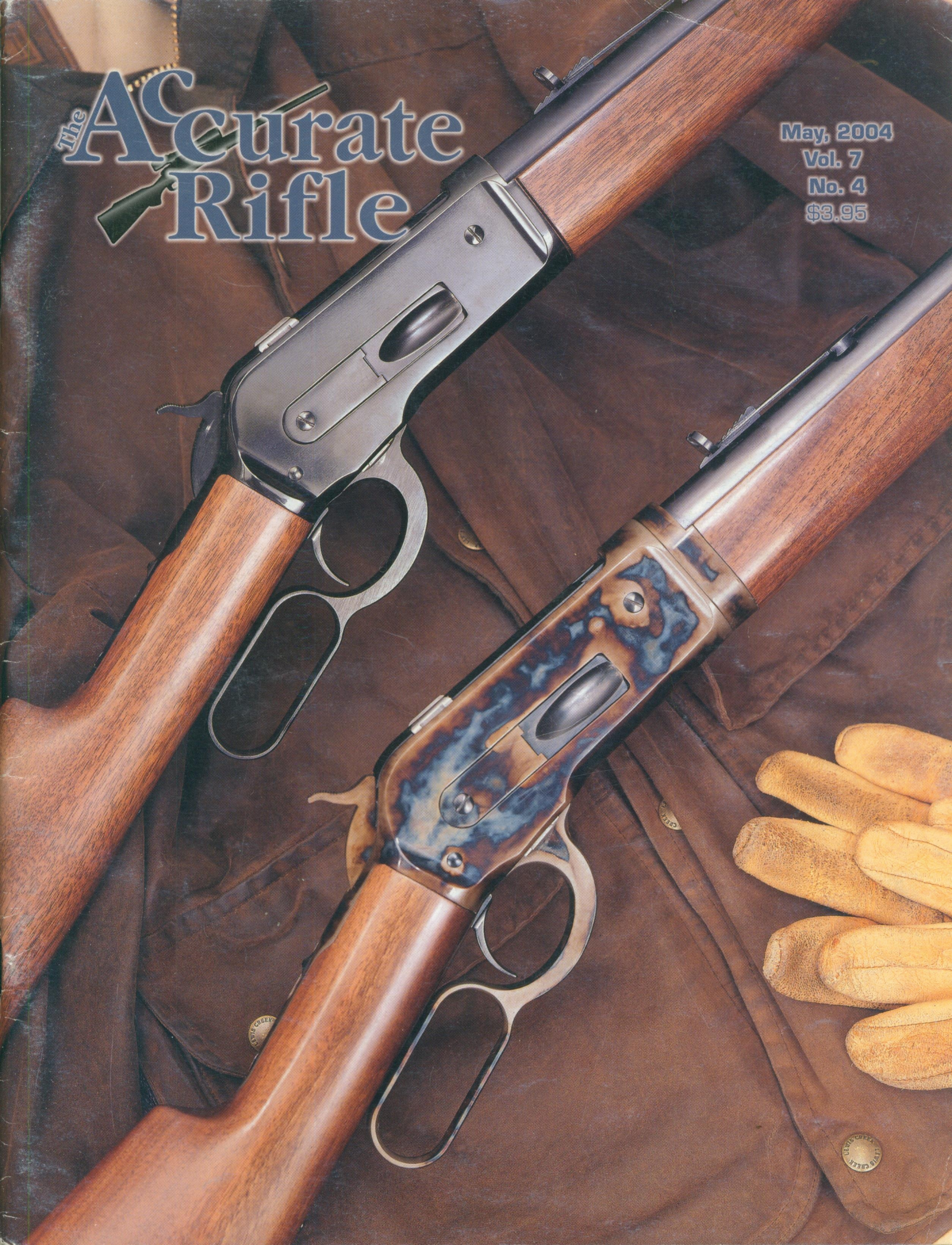
The Accurate Rifle
May, 2004
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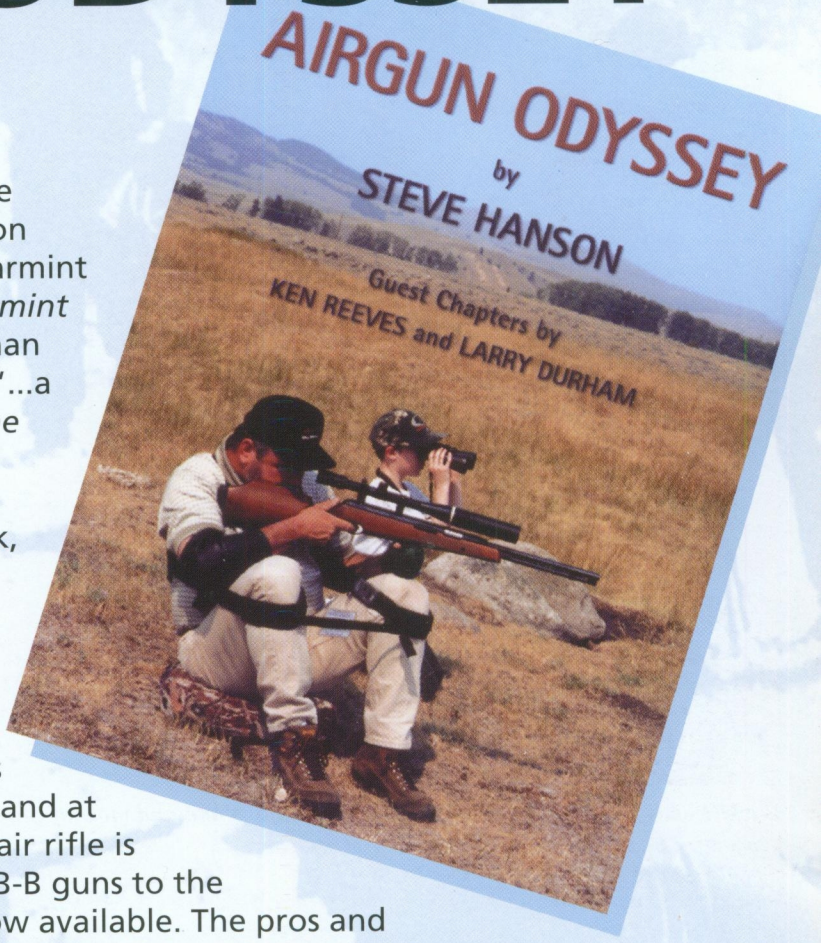
The newest book from the author of the critically acclaimed *A Varmint Hunter's Odyssey...*

AIRGUN ODYSSEY

By
Steve Hanson



Steve Hanson's first book was greeted with wide acceptance from the time of its initial publication back in November, 1999. "...a standard in the varmint hunting field for many years to come." said *Varmint Hunter* magazine. "...you need go no further than this book." reflected American Survival Guide. "...a most informative volume..." in the review of *The New GUN WEEK*.

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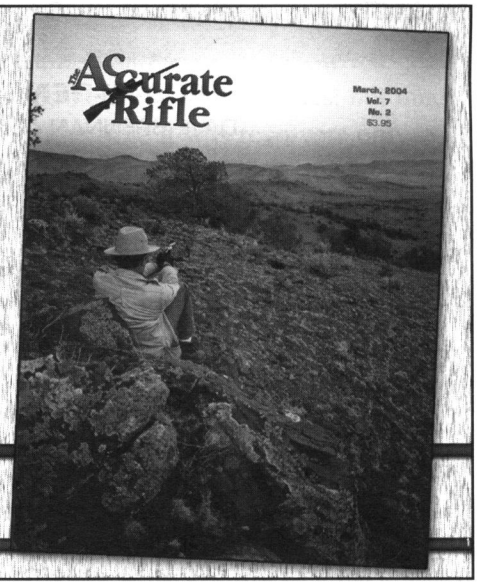
1,000 YARD REVOLVER SHOOTING

PART 1: BACKGROUND



Buck (Robin) Clouser photograph. Buck took this photo and most of the others of me in prior articles; Marcia Clouser took the remaining ones. I'm using my five inch Smith and Wesson 629 Classic DX .44 Magnum here on a 24 inch, 1,002 yard steel gong. Note angle of aim and electrical tape elevation markers on top of barrel. This photo is right out of the twilight zone. I'm well beyond torqued up here and have transcended to a state of post-hyper orbital tranquility. This is necessary to get in touch with the needs of the gun, which in this case are many. The fun doesn't really start until the trigger breaks and all hell breaks loose. When you're amped up that much though, it doesn't feel like hell breaking loose. Every part of the recoil sequence is an old friend, that Smith and I are doing the tango, and I'm going along for the ride in the most consistent manner possible. My head computer observes, compares and records every jet action, wrist twist and muscle reaction nuance of the recoil cycle in slow motion head videos. With an experienced hand and match grade revolver and ammo, gun handling in recoil is by far the most important accuracy variable, in my opinion. Second is trigger work, and third is probably the wobble radius in holding the piece. That radius is easily decreased with dry fire practice, and good trigger work can be learned with practice and experience. But riding the bronc—that's the tough one. Its huge effect on accuracy is because the bullet is still in the barrel during the recoil. My slightest muscle inconsistency in the ballet is a disaster, and brings with it a cacophony of cerebral cortex nasty comments through plugs and muffs. A proper recoil ballet will bring me the relief of head silence and allow contemplation of life, happiness and impending hot chocolate chip cookies while waiting out the four second flash to bang time, which feels long enough to sit down and eat my lunch. Long range revolver work can be embarrassing if one is unprepared, as gongs have no mercy in their snickering and cat calls. But a determined, experienced shooter with an accurate piece like this Smith and Wesson can make a 1,000 yard gong as nervous as a hen pheasant in a ditch with its neck stuck up.

BY ROGER CLOUSER

Thousand yard target shooting altered molecules in my brain. We used three cowboy rifles in .45-70 and .30-30, a falling block .243, and four revolvers in .44 Magnum, all shot offhand with iron sights right off the base camp front porch. The rifles changed my head good, but it was the revolvers that really did a job of messing up my neurons. The interactive sand pit effect of seeing bullet hits at the target put shooting in warp drive. Each handgun revealed a personality we had never seen before, with an effectiveness and competency at long range we didn't quite expect. Few things in life look the same after pursuing thousand yard gongs with a five inch Smith and Wesson. Especially the Smith and Wesson.

We shot our camp and backpacking pieces that had given us years of priceless solace in the wilderness—revolvers that got us through wooly places and dangerous encounters, real over the counter handguns without TV screens, that fit in a holster and rode on our belt for many years

Continued on page 5

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1,000 Yard Revolver Shooting, Part I: Background

Continued from page 3

and miles. These were guns we relied on against dangers real and imagined, real guns we slept with.

For years brother Buck, his wife Marcia and I camped and backpacked in the most desolate areas of the Great American West, drawn by the remote majesty and primitive splendor of places without time. Only a fool would go into these settings unprepared, and we always did our best to stay on the proper side of the food chain. That meant big bore lever actions and revolvers if we were car camping. Never a shotgun. Backpacking we carried rifles and handguns a few times, but much of the time it was revolvers only.

These two vintage Super Black Hawks have been reliable partners in the wilderness for 28 years. Buck's near pristine gun is at left, and my well worn piece is in a Bianchi Lawman holster at right, one of our favorite ways to carry them. We bought these guns in 1976 from Irve Joffe, of Joffe's Gun Shop in Upper Darby, PA. I got that big warm Joffe smile when I walked in the door, surprised he still recognized me. I had been getting that great smile since I was twelve years old back when Irv's shop was located at the corner of 52nd and Chestnut in West Philadelphia. It was one of those classic shops you read about with gun-oil soaked wooden floors, rows of rifles and a cozy serious magic. Treasured head videos those are, and even come with the shop smell. Every trip in there I came with a big list of questions and in need of a gun. Irv was wonderfully patient, took my inquiries seriously, and treated me like a regular guy. In 1976 I was back in the Philadelphia area visiting family, having screamed in from Kansas in a 1972 911S Porsche, the fastest street model made before the turbos, Porsche's dry sump overhead cam hemi entry to duke it out with Ferarri. It had far more horses than cubic inches, titanium lug nuts, six inch long flared injector tubes, serious top end punch, and at the time was the only car I had owned that could pass repetitious 120 mph to zero bonsai brake tests. Buck and Marcia had just invited me on a Wyoming backpack trip, I needed provisions, and a big hog leg was first on the list. I just knew I had to go see Irv Joffe and buy a .44 Mag Ruger Super Blackhawk. I had wanted one for 14 years, no Wyoming bear was going to chew on me, and blasting around in that Porsche got me in the mood. Rompin stompin rocket cars, wooly trips to the boonies, and big guns, by dang. It's the American way. Buck and our dad Roy came along, not wanting to miss yet another Irv Joffe experience, and Buck bought his Super Blackhawk that day as well. It was the right thing to do. We put a lot of miles on those Rugers over the years, and both of us feel they saved our rears a few times. We had a wonderful visit with Joffe. Big grin, easy going, happy to see us. We were back again buying another gun just like 1957. One of the rifles on the rack just behind Irv yelled at me and would not quiet down. Doing paper work and gabbing with Irv, I couldn't concentrate. Irv, I said, whatever that rifle is back there with the outrageous wood, I need to see it. It was my 94 Winchester Classic 26" .30-30, one of our camp rifles, and 1,000 yard veteran. Love at first sight, and still it talks to me.

It didn't take long to develop a healthy dose of ambush paranoia in the boonies, especially long range paranoia. For years I had wondered about the feasibility of a number of Western film long shots (**PS**, 12/2000), and decided it was important to know the long range defensive capabilities of our camp handguns at least for psychic peace around the evening campfire.

Bold bears, huge irate ungulates and scary humans were trouble enough over 42 years of wooly trips into the wilderness, but apparitions were the most consistent problem. They came daily and stayed around, all the more brazen and in greater numbers the more remote and freaky the country, and curiously looked like what Burt Lancaster and Lee Marvin had to deal with in *The Professionals*. These apparitions also preferred the tops of canyons if we were fool enough to walk the bottoms, the best long range ambush points around a campsite, and rifles. They loved to show themselves and their guns, look mean in our direction, rarely said a word and were a total fright.

I knew Buck was seeing them. He requested way too many effective range estimates for our pack guns. Many years back at one especially hairy backpack campsite he caught me away from the ladies, and without comment, pointed out three sites around our camp and asked about the capability of our .44 Mag Ruger Super Blackhawk revolvers to those points. They were the most primo ambush sites on higher cliffs around our camp, whoppers at about 175, 460 and 800 yards, all three instant

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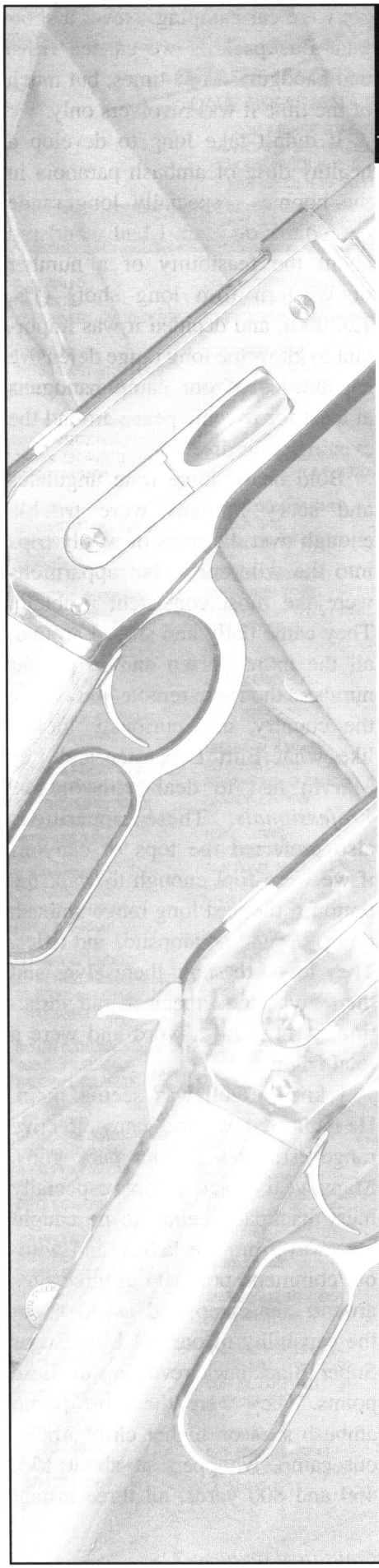

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1,000 Yard Revolver Shooting, Part I: Background

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consternation. It was typical of Buck's radar to be picking up such things, but I was freaked I had missed them and that lost innocence would have the cliffs filled with *bandoleros* and big hats all evening. I told Buck I thought the Rugers would be devastating at the first site and surprisingly effective at the second, but with no handgun experience in those days at 800 yards I really couldn't say for sure on the last position. That made me nervous. A guy should know things like that.

When shooter heaven materialized in canyon country decades later I knew it was my duty to find out how far the camp guns could bring defensive heat, the Elmer Keith *would you want to be standing out there beside the target* criterion. This was made clear to me by the presence of Everest, a 1,000 yard hill sitting right in front of our base camp porch. We had always felt we were on another planet in canyon country, with no one around for miles, strong boony spirits, an asteroid landscape and an unparalleled feeling of self-reliance. Show up here without a gun—no, a lot of guns—and you don't really understand where you are. The power of the wilderness made me feel like I was in the *Star Trek: Voyager* holodeck, a computerized diversion where one can dial up any fantasy desired. Compelled by the *Dirty Harry* "I gots to know" factor, I naturally picked 1,000 yard shooting with Buck, using our camp guns.

We shot the revolvers off the porch right along with the rifles, of course, as it was the right thing to do. Many times in the boonies we had revolvers only, so it made sense to find out what they could do at long range as well. And we shot all the guns offhand to establish a worst case scenario since every other shooting position would give better accuracy, and we had experienced enough rough-country wilderness hikes where offhand was the only shooting position possible. Apparitions, we observed over the years, loved to show when we were climbing canyon walls. So offhand 1,000 yard revolver target work made a lot of sense and was hugely pragmatic.

We devised a visually scored 1,000 yard target system, with a 20 foot cross pattern of measured stakes laid out on Everest, with a convenient 12 to 15 inch shrub as the target center. Dark green junipers give nice contrast on tan soil, without the glare and ghost rings I get with traditional black on white targets or the horror of fluorescents. In later

Continued on next page

Sidebar #1

Sleeping Guns in the Boonies

Mine need to be big bore, ready for a close up bear snout inside a backpacking tent or a rifle-toting apparition a few bullet seconds away. Rifles can be cumbersome packing and awkward inside a small tent. Even so, my first choice is a big rifle and revolver. Apparitions are impressed and I get a good sleep. Two guns are always better, and better yet is being out there in the woolies with Buck, Marcia, and more guns.

In rifles I want a one minute-of-angle big bullet repeater with iron sights that are good in low light and close up work, but also precise to 1,200 yards. My 24" barrel 1886 Winchester .45-70 comes real close to this, with eight 311 grain LBT-LFN cast soldiers at anywhere from 1,550 fps up to 2,000 fps depending on how paranoid I felt when I loaded them, and the size and quantity of dinosaurs I expected to run into. In its more frisky loadings, this gun comes across as more of a light British Express rifle than the frontier black powder gun it is, with surprising firepower and long range specter intimidation. Given proper shot placement, it could knock the snot out of one of *Jurassic Park's* 4x oversized v*elociraptors,* just in case you were wondering.

When confined to the usual single handgun, I get real demanding about qualifications. Ideally I want a one minute, five inch barreled double action revolver with major horsepower, serious firepower, big fat bullets, and a 1,200 yard iron sight that's fast for close combat and lowlight bear snouts, but also has remarkable precision for extreme accuracy at long range. My 5" Smith and Wesson 629 Classic DX has many of these attributes. Its compact and handy size make it highly practical hiking in the weeds, it has long range intimidation power, and for close up work it can dispense six fat ones at a most respectable speed.

A man usually knows if he picked the proper sleeping piece waking up the first morning in the wilderness. If snapped twigs, hisses and big snorts kept a guy up the previous night, he may not have packed enough gun.

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1,000 Yard Revolver Shooting, Part I: Background

Continued

years we switched to dark green gongs. Pre-made paper targets were marked by the spotter watching each hit through 25x. The system allowed an inordinate number of targets to be shot in rapid succession without the need to build a barn sized target frame or scamper 3/5th of a mile twice to change targets between strings. We felt this target system was highly practical in giving a close representation of what a paper target of the same group would look like, and we sure learned a lot real fast.

Punch a few through the juniper and a new perspective on life coalesces. Dust columns emerge triumphantly with movie grade orchestrations, giving dignity and purpose to all of my load messing, souping and mental hijinks. Off to the side of the porch there might even be an approving nod from the Duke. Carbide primer pocket cleaners are not doubted at moments like this. Nor are the seemingly obscure and near endless line of gauges, tools, and their resultant measurements and manipulations to ammo, gun and sometimes me. The mess in my loading room and support gun clutter even make perfect sense. I need all that junk.

Cool tools aren't enough, of course, as the shooter makes the biggest difference. This is true with rifles but even more so with the revolvers. Mess up with an incomplete follow-through, poor wind reading or spastic let-off and schmuckdom arrives immediately. The hit could end up in the next county and there is no hiding it. That dust plume will rise faster than others, sport a nasty cartoon face with glaring stuck-out tongue and produce a Bronx cheer audible through plugs and muffs.

The Duke's eyes would turn to slits if I were unwise enough to look in his direction, with pithy comments and salty personal observations likely to follow. He could even start that Pilgrim stuff and I didn't need it. The instantaneous cackling and hoots from my head audios were bad enough. Any inconsistency on my part and the cerebral cortex wise guys would go bananas with snide comments, and Lee Marvin's voice could even jump in on the fray. It was

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Buck's 6 1/2 inch Smith and Wesson 629 Classic DX is at the bottom, and my 5 inch is at the top. Classic DX 629s are the pick of the litter that shot under two inches off a machine rest at 50 yards. They are beefed up from earlier Model 29s, have impressive quality and are total classics. I feel sorry for those who don't own at least one big bore N frame Smith and Wesson as they are missing out on one of the important nutrients of life. I can feel N frame Triple Lock history every time I pick up one of these babies. With 300 grain bullets they have impressive firepower, deliver major lead in a hurry and can wake up shrubs well past 1,000 yards. In close under 500 yards they can pour some serious heat on a 12 inch juniper. My five inch Smith usually ends up beside my sleeping bag at night, and always gives me a good sleep. When I was confined to a single handgun hiking in country with packs of elk-eating dogs, this was the gun I carried. A person doesn't have to experience too many hikes like that to realize the gun has paid back far more than its cost in peace of mind. Usually the first night on duty will do it, which tends to put the gun's price in a get-what-you-want perspective. These big Smiths are also huge fun in long range target work. A competent hand with a large accurate revolver can have enormous sand bank fun at distances a lot greater than most would guess. Paint me an Elmer Keith believer. I love these Smith and Wessons. They're full of history, serious shooters, and accuracy bargains for the money.

About the Cover

A couple of USRAC Winchester 1886's from the shops of Turnbull Restoration. The top rifle has been rebarreled to 50 Alaskan and the lower rifle, a .45-70, was converted to a takedown and charcoal case hardened by Turnbull. See the story on page 12.

Steven Dodd Hughes photo.

Sidebar #2

Revolvers and Backpacking

Ideally I would prefer a rifle on a backpack trip. But in all those years we usually didn't carry one because we already had far too much weight and bulk to begin with. The best solution was a big bore revolver that thinks it's a rifle. That way only the shooter is holding things up, as it should be. Long range extreme accuracy is mandatory for my pack guns. Today I use a Freedom Arms .44 Mag. for that purpose, as it doesn't think it's a rifle; it knows it.

Many years back on a wooly pack trip Buck and I carried Ruger Super Blackhawks in .44 Mag. with 311 grain LBT-LFN gas-checked cast at 1300 fps. It was my specter-resistant accuracy setup, just under a top load with good horsepower that gave me the confidence, without burning a grain of 296, to convince a bear helping himself to our supplies one day that he had better things to do.

Chasing off a bear could be viewed as an inane idea of course, which I would chalk up to youthful indiscretion. But it was Buck's pack with important provisions being attacked, and we needed that stuff. What we didn't need was that big hairy pig showing up in broad daylight, ripping and chomping on that pack 15 yards away from our tent like he owned the place. I thought that showed a fair degree of impertinence, and that he must have successfully pulled this stunt before. Showing disrespect in the boonies is a serious thing, and one couldn't help wonder what else was on this guy's mind. We were three days from nowhere, Marcia and my girlfriend were along, and this clown had already violated our space and supplies. So there was plenty of legitimacy to stand our ground here. Mr. Big Shot would have done the same if I had been messing around with him, and I didn't much care for his insouciance.

"The best diplomat I know is a fully activated phaser bank." — Scotty, in ***Star Trek.***

So basically I charged him, growling. Years before, this was a standard option we had for coming out of a football huddle to the line of scrimmage, although we relegated it to an especially few susceptible, soft minded opponents. Since this was a black bear, I reasoned, I should growl like a grizzly, and maybe combined with raised arms and being half dressed, the charge would be something Mr. Big Shot hadn't seen before. He had not, as it turned out, and put his ears back and ran. Rocks and expletives helped keep him moving. This diplomacy was certainly aided by the presence of my Super Black Hawk and Buck's backing me up, which gave us the confidence to stand up to a bully in a non-lethal way. Years later when I sold Buck's backpack I bumped the price up a bit for its bear slobber and tooth hole charisma.

If confined to jacks I would never want the standard 240 gr. bullet for such wilderness defense work, as 300s are far superior in every regard. Even better is my present Freedom load of 348 gr. oven cooked cast gas-checked LBT-LFNs at 1,175 fps. Far better than either is a stiff .45 caliber rifle with a big magazine, and the best of all is my present policy of not dorking around with bears.

The size flexibility of cast bullets can really make a revolver turn on the beans. I did a very limited and measured firelap job on that Super Blackhawk and then opened five of the chamber throats to the size of the largest by tapping lapped cast bullets through with a dowel and hammer. The cast bullet sizer die was then opened the same way until sized bullets had a magic feeling when pushed through the chambers. Each hole was round and identically sized, with the exact lapped-in size the bullet needed for a snug-slip departure. Final bullet size turned out to be a relatively large .4328 inch. Proper cast bullet fit to the chamber throat is far more important than final bullet size as long as that size is larger than barrel groove diameter. In this case .0038 inch larger is not a problem. Launch the fat guy off straight and the barrel will know what to do with him. Plan accordingly with an oversize mold, a specialty at LBT.

Bullet alloy compressive strength is also critical as any barrel leading ruins accuracy in a hurry. Air cooled wheel weights were too soft and leaded the barrel with 311 gr. gas checked cast at 1,300 fps, so back then I had to water drop bullets out of the mold to get the hardness. Today I would fire up the Silver Streak and oven cook the big guys to get compressive strength consistency far better than I could do water dropping. With perfect bullets and chamber fit, no leading, and 20 gr. of 296, I got 50 yard five shot groups off the bench that ran slightly less than 2 inches with a homemade prototype iron sight. At 100 yards it did 4 1/4 inches, making the Ruger a classic American handgun that kind of acted like a rifle. Bears didn't care but apparitions kept their distance.

Sidebar #3

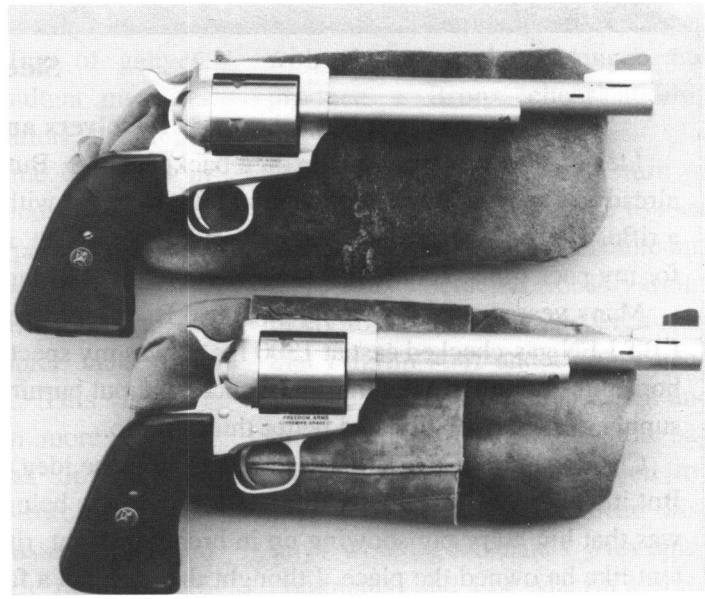
1,000 Yard Visual Target

The 1,000 yard target system we cooked up was a 20 foot cross pattern of aluminum stakes set up on Everest, a 23 degree hill. At the target center we used whatever 12 to 15 inch juniper was convenient. Hits were easy to see at 25x, and then marked on a pre-made paper target. In fact, I commonly used 20x when I spotted for Buck since it was still strong enough to see bugs flying around the target but gave a better view of larger bullets that were visible sailing in. We felt target accuracy was excellent: under 6 inches per shot with smaller groups and less than a foot in large groups. There was nothing of the target to blow away, little to destroy, and nothing to change between strings except for the spotter to use a new target paper. The system did take some time measuring and laying out the stakes, but overall was fabulous, producing targets we felt were very close to what a real shot up piece of paper would look like.

Another up side of the system was that it allowed a huge string of targets to be shot as fast and for as long as shooter and spotter could stand it. One got a lot of experience in short order.

If I were to do another target setup there would be a few changes. All those stakes aren't really needed. A few would be fine for scale, but aside from that I would simply take a photograph of the intended target area with scaled stakes and make multiples on a copy machine for targets. The spotter would simply mark which tuft of grass or little jutty rock was just splatted, and the whole deal would be easier to set up and score.

In later years we switched target centers from shrubs to steel gongs. Range tests of 8, 12, and 24 inch cardboard circles showed the 24 inch the best size for the .120 inch front sight apertures in the rifles, but any of those gong sizes would work fine. Even the 2 by 2 inch painted squares on the aluminum stakes were not all that hard to see. At first I painted the gongs florescent orange but later changed to dark green, mimicking junipers for good contrast with no glare or ghosting.



Buck's Freedom Arms revolver is at the bottom and mine is at the top. Buck and I have shared the same interests in guns since 1953 when we pooled our money together and bought a BB gun. So when I announced I had to have a Freedom revolver to shoot long range shrubs and gongs off the base camp porch, Buck bought one as well. These are Premier Grades in .44 Magnum, with 7 1/2" barrels and factory three pound triggers. Freedom revolvers are cheap considering their outrageous quality and accuracy. We've had priceless, hilarious times with these guns, especially launching big lead at the Sheep. With 300 grain jacks they do zero to 1,000 yards in 3.5 seconds and raise a good sized dust ghost at the other end. These high pressure jewels can sling heavy lead and they're seriously accurate. They are also rugged, easy to pack, and agreeable in the recoil ballet. Our 1,000 yard target sessions were usually 120 shots per gun, and post target sessions with the Sheep another 60 to 80 rounds, with concurrent horse laughing. The manageable hog leg design of these revolvers is excellent in the tango for long strings, but horse laughs are detrimental to accuracy, especially offhand at 478 yards. Even in the warp, I think about those Freedom chambers line-bored off the frame and don't give a dang how much these guns cost. Just one wilderness sunset shared with armed apparitions and you wouldn't either.

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1,000 Yard Revolver Shooting, Part I: Background

Continued from page 8

terrible what I had to listen to for anything but complete perfection, especially in the recoil ballet.

With the revolvers, the ballet is everything. The Freedom revolvers are screamers right out of the factory, and the Smith and Wessons are hand selected machine rest superstars. The ammo for each gun was my latest generation in a long developmental line of match grade stuff, much fussed and clucked over. So that leaves me and the ballet as the largest accuracy variable, and one that sure shows up big at 1,000 yards.

So this was the game. It came with laser crisp high altitude visibility, warp drive surrealism and unparalleled near instant feedback. The producer of this camp revolver target magic was Buck, a cool hand in the warp and spirited enabler of my holodeck experience. He's been producing magic and looking after me for 58 years and I can't thank him enough for that. Buck showed incredible patience as a spotter, enduring porch-shaking wind, terrible cold, concussive muzzle blasts and exhausting hours of hot H110 grainblasting out of the cylinder gap, all to hand me paper targets of what he recorded through 25x, hard copies from the twilight zone. Barring 1,000 yard gongs that shoot back, I couldn't ask for a wilder experience with a revolver.

rogclo@myvine.com

References

Roger Clouser, Canyons 1998, Part 4. **P.S.**, December, 2000

Sources

Lead Bullet Technology, HCR 2, Box 145, Moyie Springs, ID. 83845. LBTisAccuracy@imbris.net

Bullet line-up for .44 Magnum revolvers. At left is the standard 240 grain weight in a Speer. I never use this weight anymore, as heavier bullets do everything better. Next is a 300 grain Sierra, a 300 grain Hornady XTP, and a 300 grain Speer. All are excellent, and the top weight jack I use in medium strength guns like S&Ws. Second from right is a 311 grain cast LBT-LFN, my favorite cast bullet in this weight range and top choice for the S&Ws. At far right is my pick for Freedom Arms revolvers and bears if I left my .45 caliber rifle home: the LBT-LFN at 348 grains. Both cast bullets are gas checked and indexed.

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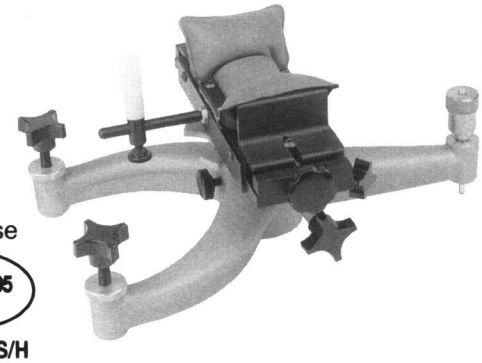

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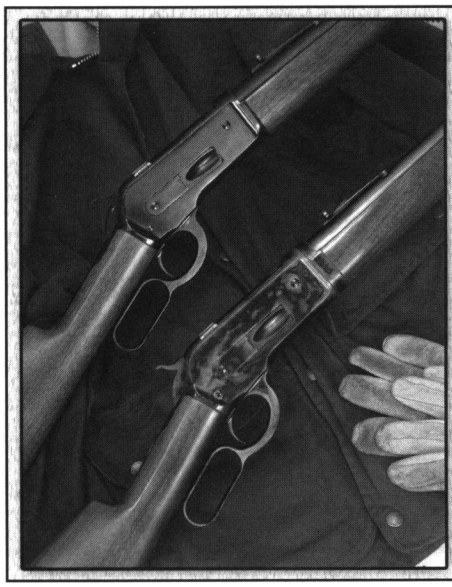

COVER PHOTO STORY...

BIG BORE CLASSICS

FROM TURNBULL RESTORATIONS

BY STEVEN DODD HUGHES

One of the most enjoyable aspects of collecting or studying Winchester lever action rifles is the vast variety of models and options that were once available. I used to own a Model 1895 in .30 US with a 24" barrel, Lyman #28 receiver sight, Lyman ivory bead front sight and a genuine Winchester recoil pad. All of these features "lettered" to make up my idea of the perfect factory equipped M-95. I sold the rifle in a moment of brokeness and have regretted it ever since. Try to find another.

Several years ago a client challenged me with a custom Winchester Model 1873 project. He wanted a combination of factory options that neither one of us had ever seen on an original. Deluxe pistol grip, half-round half-octagon matted barrel, button magazine, cheekpiece, I can't remember all of the options. It turned out to be a completely unique custom rifle and we added a few non-factory features so no future Winchester collector would ever confuse it with an original.

The takedown 1886 features color case hardening and is chambered in .45-70. The 50 Alaskan is a blued, rebarreled USRAC 1886.

With the advent of reproduction lever guns from Browning and U.S. Repeating Arms Co. the shooting public now has the opportunity to own various new lever guns at less than the cost of the scarce originals. Only problem is, the new rifles have few, if any, options available. Why the new M-95 was offered in .270 continues to baffle me. But when they didnt sell, someone got the bright idea to convert them to the rare and desirable .405 chambering, Teddy Roosevelt's favorite.

Winchester's stoutest lever rifle, the Model 1886, was originally offered in the heyday of individually ordered factory rifles. Peering at the pages of Maddis' *The Winchester Book*, one sees infinite variation in factory options making for many unusual rifles for todays students to ponder. Anyone who has ever hefted an '86 has to be struck with the sheer substance of the massive repeater. If you've shot one you've experienced a smooth operating machine with butt-kicking cartridges. Now it is

possible to own the recreated version from Browning or U.S.R.A. but the possibilities from the factory are substantially limited. As a matter of fact, both companies have discontinued the 1886 but they are readily available in the marketplace. I saw a new USRAC Lightweight .45-70 at the Bozeman gunshow last weekend for $850.

Doug Turnbull Restoration has launched a new program called Big Bore Classics to offer shooters and collectors options not available elsewhere. Utilizing either an original Winchester Model 1886, or the newer Browning and Winchester (USRAC) rifles, your wish is Turnbull's command.

Starting with shooters, Turnbull has some interesting conversions that will transform your rifle into something special. The M-86, being the largest caliber lever rifle that I am aware of, evokes the desire to find out what that really means. A .45-70 can be simply rechambered for the hotter .45-90. Or it can be rebored or rebarrelled and chambered to the .50-110 (50 Express) as the originals were built. Turnbull goes it one better, offering the 50 Alaskan, but only in the modern made rifles and not for the faint of heart. This conversion requires a new barrel and it can be had in either octagon or round with a variety of weights and lengths. Octagon barrels will need to have new forend wood and a new cap fitted.

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The 50 Alaskan loaded with the "lightweight" 450 grain bullet has a muzzle velocity of 2100 fps and muzzle energy of 4406 foot pounds. In the heavyweight 525 grain load, make that 1850 and a whopping 3989 respectively. (These represent factory loaded ammo from Buffalo Bore Ammunition Co.)

WOW!

Compared to the old Winchester factory .50-110 black powder load pushing a 450 grain bullet at 1475 with 2190 ME, it is easy to see how the modern steel of the new action and barrel come into play. The traditionalist can opt for the .50-110 and enjoy the experience of a huge cloud of acrid smoke.

Another popular option is the takedown frame. Turnbull converts these by shortening the frame, adding a takedown collar, shortening the forearm and installing the takedown magazine tube mechanism. All of the gun's other factory parts remain the same. Or, if you have a hankering, a multiple barrels can be fit to the same takedown action. That could be either of the 45's, or 50's, or some of each.

Turnbull Restorations has long been known for the company's superlative metal finishing. Charcoal case hardening the massive surfaces of the '86 proves a startling transformation. This process is the same as Winchester used in the old days and its hard to imagine not doing it while your rifle is being optimized. Rust bluing the barrel, Carbona (charcoal) bluing small parts and nitre bluing the screws also offers original color and character to any rifle.

Doug Turnbull provided a couple of sample rifles for me to inspect, check for function, and to shoot. Each was a USRAC "Winchester Model 1886" as it appears on the top tang just behind the new model sliding tang safety. I don't quite know what to think about the safety with a bright red dot in the firing mode. It sure precludes the use of a tang sight, but the action is drilled and tapped on the left side for a receiver sight. An early steel Lyman #56 would be perfect.

Both rifles, with 22" barrels,

Continued on next page

T. Harms found the .45-70 a real pleasure to shoot off the bench.

Cover Photo Story... Big Bore Classics

Continued

looked all factory at first glance. My second glance delighted in the .45-70's charcoal case colors which made me notice that one was also a takedown. The blued rifle had a fatter barrel that was marked "50 Alaskan". What I liked about both rifles was the look and feel of a "real" 1886. As for visual appearance and quality, they both came near to par with early rifles, except for that special reddishness that the original stocks portrayed. I liked them. And I liked that neither barrel said "Made in Japan." Instead, they were roll marked "Turnbull Restoration".

After "raccooning" the rifles we packed them up and took them to the range. With only six rounds of 50 AK and ten of .45-70, this wasn't going to be an extensive shooting session. My associate, T. Harms and I wanted to see how they handled, functioned, and get a general idea of accuracy potential.

The 50 caliber loads, supplied by Turnbull, were new Buffalo Bore 500 grain jacketed flatnose loaded to 1850 fps. The .45-70 were factory Federal 405 grain lead, a load I have found to be very accurate and pleasant to shoot. Unfortunately, as with many really good things, Federal has chosen to discontinue them. (For an excellent article on .45-70 loads see *The 45-70 Government,* by Robb Lucas, **TAR** Jan. 2004.)

Starting with the takedown .45-70, we each took a shot offhand just to see. The nearly 8 pound rifle was a pleasure to shoot, and after one failure to feed by short-stroking the lever, it fed and functioned perfectly with full lever travel. We managed about 2" groups at 50 yards off a rest without sandbags. Recoil wasn't even worth mentioning which makes the .45-90 a very attractive cartridge.

The big 50 was something else. Tom is my test driver for heavy recoiling rifles. He fired five of the six shots, and I took one offhand just to see. This rifle is definitely for the recoil insensitive. Weighing about a quarter pound less than the 45, the recoil could almost be compared to the .470 NE double rifles we shot last week. While not quite as severe, the lever did hurt Tom's hand after five shots. Bless his heart, Tom managed three shots off the rest with the 50 AK. At 50 yards, the first two cloverleafed, and the third was thrown out about 2 3/4", I'm sure by a combination of a heavy trigger and an equal flinch.

I would enjoy owning, shooting and hunting with the .45-70 and would only add a receiver sight. If I were to order a 50 AK, I would want to add some weight as in a takedown model and possibly a heavier barrel, add a Silvers recoil pad and a peep sight. I imagined that a pistol grip version would handle the recoil better because the angle of the grip/lever would be more conducive to the muzzle lift. Doug Turnbull confirmed this in a subsequent conversation.

I would class these two sample rifles for shooter/hunters, and each would be delightful for such purposes. The case colors and the takedown mechanism of the .45-70 add a ton of character to the rifle. Besides the "pride in ownership" factor, the takedown is quite convenient for travel, and especially for cleaning.

When it comes to collectors, or folks who would enjoy a "brand new" shooter built to their heart's desire, the imagination, and the wallet, are the only obstacles. And remember, if you have a decent original Model 1886 that is no longer in "collectible" status, it can be "upgraded" to whatever you would like. After the custom barrel work is accomplished, all sorts of things open up. Starting with wood, the most personal part of a rifle, Turnbull offers four levels of upgraded American walnut with the top grade having comb nose-to toe feather

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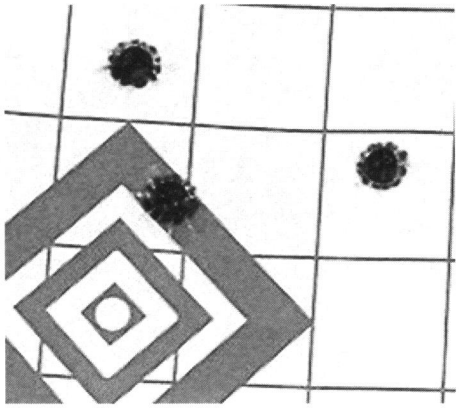
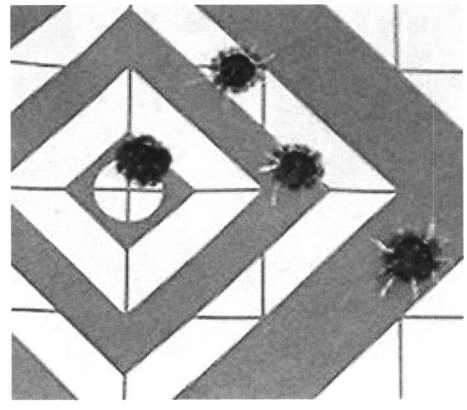
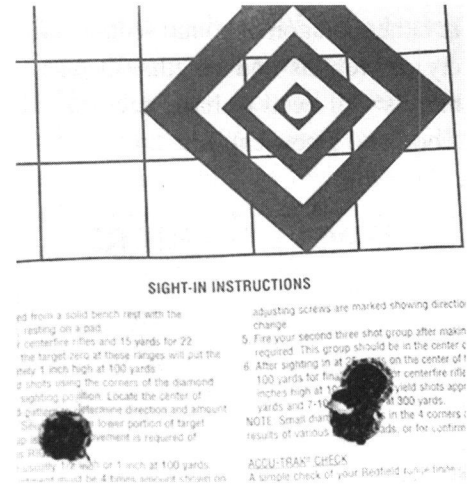




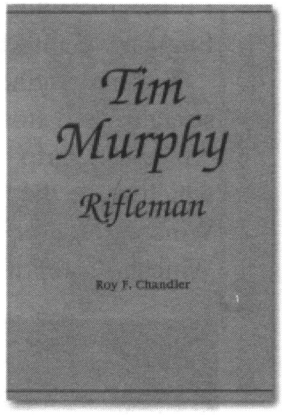
Two 50 yards groups from the .45-70 shot into about 2".



The 50 Alaska's only group cloverleafed two shots and flinched out the third.

The third book in Roy Chandler's series on colonial America...

TIM MURPHY-RIFLEMAN



It's almost 400 pages in length, but Revolutionary War hero Timothy Murphy had quite a life during his 67 years on earth.

Tim Murphy was already a famed rifle shot when the Revolutionary War broke out. At the very outset he was a member of a Pennsylvania militia company that traveled to Boston, where Bunker Hill would host the first real battle of the war. His ability with a rifle was becoming increasingly well known in the ranks of the Colonial army; he next appears as a member of the famed Daniel Morgan's Rifle Corps, one of the most effective fighting units of the Americans. Although details are lacking he is known to have fought with Morgan's unit in some of the sharp engagements in New Jersey, including the bloody battle at Monmouth. It was however at the pivotal battle of Saratoga (1777) that Murphy was to win lasting fame for his uncanny ability with a rifle.

The British forces were skillfully lead in the battle by General Simon Fraser; indeed it was Fraser and not Burgoyne who lead and rallied the army on that fateful day. Prominent throughout on a gray horse, it was very obvious to the Americans that this individual was someone who should be removed from the fray.

Legend has it that Colonel Daniel Morgan called Tim Murphy to him, pointed out General Fraser, and requested that Murphy give that individual his full and undivided attention. We are told that Murphy climbed a tree for a clear view, and at a distance of a bit over 300 yards, shot the gallant Scotch officer from his horse; he was to die on the following day. Shortly afterwards, General Burgoyne elected to surrender, and a decisive and indeed critical battle in the American Revolution was over and won.

Tim Murphy later in the war was with General Sullivan's successful expedition against the Iroquois League and later yet (1780) was a leader in the defense of Middlefort, New York against a British and Indian attack; their resolution and courage was credited with saving the colonists of Schoharie Valley.

Tim Murphy died peacefully in 1818, one of the true heroes of the War for American Independence and a rifleman without peer in his time.

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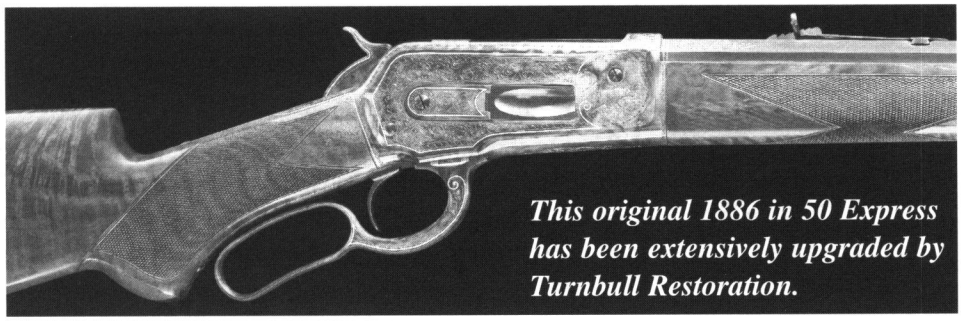
*Cover Photo Story...*Big Bore Classics

Continued from page 14

crotch, just like the Deluxe originals. He knows how to stain them red. I'll bet Turnbull would stock one in English walnut if you asked.

I can imagine pistol-gripping a straight hand stock using the deluxe "S" curve grip with ebony insert which make the finest looking rifles Winchester ever offered. My 1897 Winchester reprint "Highly Finished Arms" catalog shows all levels of checkering and engraving offered at the time. Also shown here is an original actioned 1886 which Turnbull upgraded with the above mentioned stock in crotch grain American walnut, "H" style checkering, octagon barrel and no. 6 pattern engraving including scrollwork, quaint game scenes and gold wire inlay.

To give you a hint on Turnbull's pricing, the blued solid frame 50 AK would run about $2200 at current pricing. The takedown, case colored .45-70 would be about $2000, each including the cost of the new model Winchester Lightweight Rifle (USRAC). Knock off about $900 if you already have a rifle. The high grade, engraved pistol grip version shown in the photo would be in the neighborhood of $12,000.



This original 1886 in 50 Express has been extensively upgraded by Turnbull Restoration.

Notice the size of the jacketed 50 Alaskan cartridges compared to the lead .45-70's

I did a bit of comparison shopping on the net and found many originals for sale. A takedown, lightweight .45-70 with advertised 40% blue was offered at $3200. A straight grip 50 Express for $16,000. As well as a factory engraved, deluxe pistol grip with elaborate carving in 50 Express, much like the fancy rifle shown here, for $116,000.

It is all relative and comparing the prices of originals to repros or upgrades is not really valid, but it does convey the value difference between a shooter and a collectible. I regularly hunt with guns in the low five figure range, custom guns from my shop. I've shot a lot of originals over the years but prefer to leave the scarce stuff to the collectors.

The real value in Turnbulls Big Bore rifles is in the enjoyment of using accurate, functional rifles steeped in nostalgia. The real fun may be to create a unique rifle with just the perfect combination of features and options to please you. Have a look at the 1886 chapter in Maddis' *The Winchester Book,* and let your imagination run wild.

****

For more information on the Big Bore Classics:
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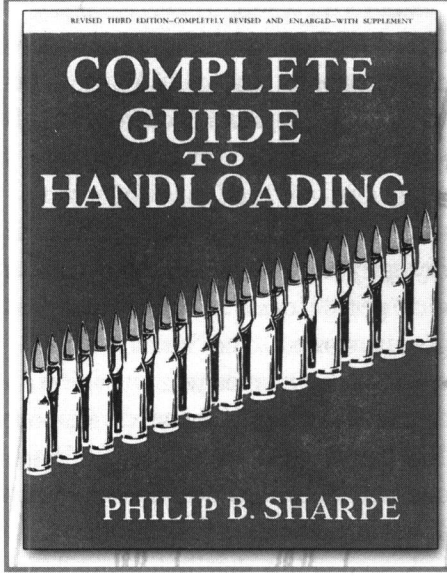

An Abbreviated History of Reloading

BY BERNIE FRIESECKE

Last summer at our club a new reloader approached me with something in a canvas bag. In telling his uncle of his new enterprise of handloading cartridges, the uncle rummaged in his basement and handed our young reloader a canvas bag with an obviously very old reloading tool sitting in the bottom of the bag. Jim fondled the black mechanism for a few minutes and decided to see me about this tool, because he did not recognize what it was even after looking in what he thought were old catalogs. It is interesting to me that people frequently ask me about OLD shooting stuff. There must be a message in that.

The tool that I took out of the bag was one that I had actually owned and used at one time many years ago. It was a Modern Bond, Model C. Some readers are probably asking, what the h—is that? In fact it is one of the worst dogs ever foisted onto the reloading community. It turns out that very few folks remember or ever knew about the good old days of cartridge reloading, then again maybe no one much cares about what we used to do in the old days. Anyhow, I thought about this for some months and decided that this whole fascinating subject might be fodder for an article I could send along to Dave for possible publication.

Many weeks went by and nothing came out of my pen, sometimes it takes some incident to get me into the mood to write. I wonder if Hemingway had this problem. Anyhow some months ago I found myself sitting in a frequent flyer first class seat on KLM flying from Amsterdam to Boston with almost 7 hours of time on my hands and decided to pen the beginnings of this wondrous dissertation on the ancient art of handloading metallic cartridges.

I had a pen in hand but no paper. Ah, but I had a tall and not so wide first class food and adult beverage menu in my hand, written in 4 languages and 8 pages long. I started my historical tome writing on that menu. I actually used 4 menus by the time we arrived in Boston.

Enough of that stuff already, let's get started with the history lesson.

When firearms were first introduced, every shot fired was a reloading exercise. The shooter had to pour powder down the barrel, then ram a ball, or shot, or a bullet down the barrel with a ramrod. The shooter then had to use some ignition system, such as a flintlock, to generate a spark that would in one way or another set off the powder charge. This operation would have to be repeated for each shot fired. Makes one wonder how far we have come when I see a benchrest shooter who keeps reloading one cartridge at a time at the bench, same as the old timers except for the cartridge case.

Along about the mid to latter part of the 19th century shooters started to use little brass bottles to put powder into. These brass bottles had a cap in the base of the bottle to ignite the powder charge when hit by a firing pin and the bullet was stuffed into the neck of the brass bottle and crimped in so it would not fall out and get lost in the pocket along with the powder charge. WOW! This was something else, all the shooter had to do was buy a box of these brass bottle things and shoot all day long without having to pour powder out of a powder horn, or stuffing lead balls down the barrel or having to push a percussion cap on a nipple. What on earth will they think of next? Of course the guns that used these brass bottles were called breach loaders, while the prior guns were called

Continued on next page

An Abbreviated History Of Reloading

Continued

muzzle loaders. One more thing, for those of you who are wondering, those brass bottles are now called cartridge cases.

Handloading was made possible when drawn copper and brass cases and removable primers became available. Tools for reloading became available in the late 19th century, of course bullet molds had been available for a long time during the muzzle loading years. There were two issues that drove the fledgling reloading industry. One was the need for farmers and frontiersmen to be able to obtain ammunition. Supply on the frontier was at best meager or non existent. The second was cost, the cost for those folks was just prohibitive. Necessity is the mother of invention and invent they did, a host of inexpensive loading tools quickly became available.

I would like to tell you a story of just what was available in the late 19th century based on my own experience. In 1949 when I was just 19 years old, I acquired a pristine model 1873 trapdoor Springfield in 45-70-500 caliber. This rifle was a special sharpshooter model with a six land and groove barrel and varnished stock, a gem, all for $15. I did not want to shoot factory ammunition in this rifle for two reasons. The first was that popular knowledge at the time indicated that the smokeless loads with their jacketed bullets would wear out the soft steel barrel quickly. The second was that it was very expensive to shoot factory ammunition, 4 boxes of factory ammo would have exceeded the cost of the rifle. A luxury of life I could not afford at the time. Handloading was my only option if I wanted to shoot this rifle. I stepped off into a world of handloading and never looked back. Of course at the time I did not have a single item with which to handload.

In those days I belonged both to the Arlington Rifle Club in Woburn, Massachusetts, and the Massachusetts Rifle Association, also in Woburn. The latter was also the famous old Walnut Hill Club. There were many old time shooters at these two clubs, people who personally knew the legendary greats like Pope, Hudson, Neidner, and Mann. Once in a while one of these nice folks would take pity on me and help me along on my early shooting career. One of these nice people came to my rescue and got me started. One Sunday morning one of these men came up to me with a box of goodies. In the box was about 100 empty used 45-70 cases of various and questionable ancestry, what a treasure trove. Also in that box was something that made my heart skip a beat. I picked up a 1890's Ideal tong tool. It was a beauty. This tool was nickel plated, and had a bullet mold on one end of the hinge pin and on the other end of the tool was everything that I needed to reload cartridges with. The gentleman who handed this box to me said "now you can get started". He also said "you can have the whole box of stuff for $5". I couldn't believe my ears, the deal was done on the spot. This gentleman even told me how to use that wonderful tool, also how to cast bullets and assemble ammunition with it.

In short order I obtained 50 pounds of free lead, and purchased 3 cans of Du Pont black powder. The powder that came in those wonderful red oval metal cans with a black and white label on the front saying DUPONT SUPERFINE FFG GUNPOWDER. Would you believe I still have those cans on a shelf in the shop? I also acquired a box of primers, and I was off and running. Essentially I now had what a person in the late 1890's would have had to reload, with a rifle to match. For me this was living history. Another old timer gave me his secret formula for a bullet lube, it consisted of paraffin wax, beeswax, lanolin, and powdered graphite. It was a magnificent

lube that I used for years on all sorts of lead bullets. I don't know for sure if it was a 19th century formula, but I'd like to think that it was.

I was now all set to start my journey into handloading; it was a long jump from having all the things I needed and the actual making of ammunition. In the late 1940's there were very few instruction manuals or articles on the actual step by step process of loading ammunition, and none using the Ideal tong tool that I owned.

Well first things first, Bullets. I had to cast bullets, which meant I first had to melt the lead and put in some bar solder to add tin. That was easier said than done, I had a 10 pound lead pot and a hand dipper and decided to give it a try on my Mother's gas stove. That was a monumental failure, the pot never got hot enough and the kitchen got very hot and was beginning to smell, but the lead would not melt. After about a half hour I decided to stop, because the kitchen was smelling pretty bad. My Mother and Dad had gone to visit some friends that Sunday afternoon and I did not want my Mom especially, to find out what I was doing in her kitchen. I hurriedly cleaned up the mess and opened all the windows in hopes the smell would be gone before she got home. It did and I squeaked by another almost crisis.

The next day I went down to the hardware store and purchased a new propane torch. I went out to a workbench in the garage this time and that turned out to be a much better choice than the kitchen. I wrapped the 10 pound pot in asbestos cloth and placed the pot on a metal tripod and put the torch end up under the bottom of the pot and bingo, it worked. I had to be very careful how I held the handles each time I poured lead into the mold, because the mold did not have alignment pins. I eyeballed the mold each time prior to pouring lead. The handles got very hot, because it was just metal from the mold to the handles. I ended up borrowing a pair of my dad's heavy leather working gloves. I was quite distressed to see how fast the lead in the pot disappeared, I was only able to cast about 100 bullets before the lead in the pot got too low to scoop out. I was thrilled, my very second try in casting bullets worked and there they were, all those wonderful silvery bullets sitting on the workbench. Needless to say I did not measure or weigh them, or checked how round they were, they came out of that wonderful mold and had to be right.

The next step was to lubricate them. I put a quantity of bullet lube in the bottom of an old style low coffee can and heated the can using the propane torch with a very low flame. When the lube had all melted I placed the bullets into the melted lube and shut off the torch. I came back about an hour later and the lube had hardened onto the bullets. I used a borrowed cake cutter (a steel case like device that was hollow with an internal diameter just larger than the bullet diameter) and slid the cutter over and down the bullet to separate the bullet from the lube. When the cutter hit the bottom of the pan I twisted the cutter (with the bullet inside) out of the pan and pushed the bullet out of the cutter. Just like that, a lubed bullet, magic.

All the bullets were lubed in that manner and now had to be sized. The sizing was easy. The tool had a sizing hole in one side of the handle and a short stubby rod on the other side of the handle which pushed onto the bottom of the bullet which I placed nose first into the sizing hole. One big squeeze on the handles and the bullet popped out fully sized. No, I do not have a clue what the sizing diameter was. If it was good enough for the old timers, it was good enough for me.

The case preparation was simplicity itself. To decap one had only to put the decapping rod (a cylinder a little longer than the case with a decapping pin in on end) into the case and put the case with the rod into the sizing die which was part of the tool. Squeezing the handles would pop out the spent primer and also size the case. I would then take out the decapping rod and put the case into another hole in one side of the handle. This hole would allow only the case walls to go through, but not the rim, similar to a barrel cham-

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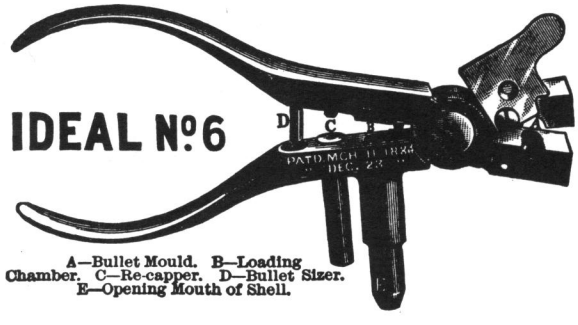
40 **IDEAL MANUFACTURING CO., NEW HAVEN, CONN., U. S. A.**

REGULAR LIST.



A—Bullet Mould. B—Loading Chamber. C—Re-capper. D—Bullet Sizer. E—Opening Mouth of Shell.

The first reloading tool I ever owned, for the 45-70-500.

This implement like No. 4, is complete, performing all the operations required. It also has the bullet sizer, and is adapted to load the larger cartridges Military and Sporting.

An Abbreviated History Of Reloading

Continued

ber. I would then put a primer into the primer pocket. The other side of the handle had a short stubby primer punch, and careful closing of the handles would seat the primer.

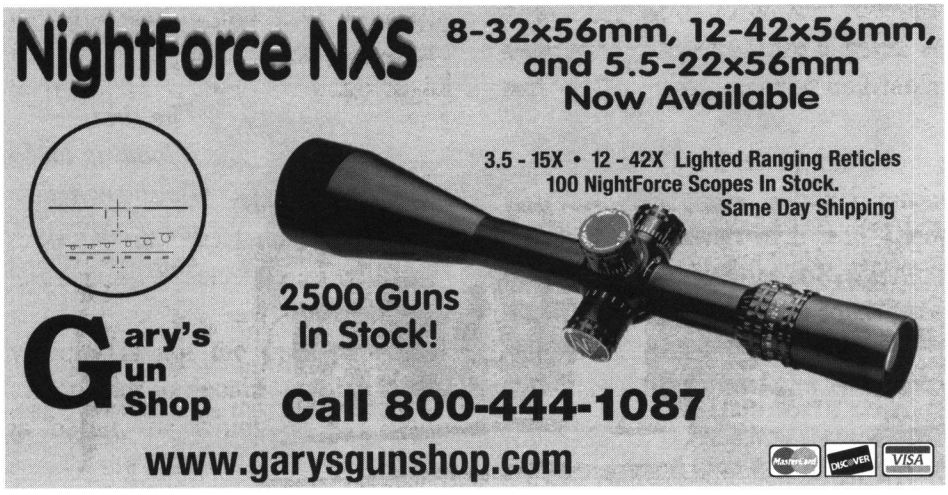
Charging the powder was simplicity itself, one of the old timers gave me a cut off case with a wire handle soldered onto it. This charger would hold about 65 grains of FFG black powder. I would pour out the powder into a cereal bowl and use the scoop by filling to the top and then scraped the excess powder with a small stick. I did cheat and use my mom's small metal funnel to pour the powder into the case.

Seating the bullet was the last step. The bullets were pushed into the case. The sizing was clearly not tight enough to hold the bullets from dropping out. No matter, there was enough powder in the case to insure a compressed load, the bullet would not fall down into the case. The actual seating used the same die chamber as the decapping/sizing. Now the decapping plug was not in the seating chamber and I placed the cartridge, bullet up, of course, and pushed it up into the seating chamber. The last step was to pull up the handle to seat and crimp the bullet. Of course there was only one seating depth. The one that the Ideal Co. wanted. As most of you know the Ideal Co. became the famous Lyman Company and later models of the tong tool had separate screw-in sizing and seating dies.

At the range at last, I set up a 100 yard smallbore target and used a sand bag on a bench to rest the rifle. What a thrill to put a cartridge that I had loaded into the breach of that wonderful 45-70 Springfield. A careful aim and KABLOOM, fire belched, and a cloud of white smoke issued forth, and WOW! I had hit the target. At the end of that very memorable event I had fired 30 rounds, had a sore shoulder, and was floating on air with satisfaction. The fact that the group measured 8 to 9 inches was irrelevant. The experience was sublime and one I clearly remember to this day.

There was one follow up event that was important. The black powder I discovered left a horrible black fouling crud in the barrel and took the better part of an hour to clean with soapy water, solvent and oil. I asked one of the old timers what they did to alleviate this problem. One of the gentlemen suggested that I dump 10 grains of bulk smokeless shotgun powder into the case prior to filling the case to the same level as before with only black powder. I did as he suggested and would you believe it, the black fouling crud almost disappeared. You might ask what bulk smokeless shotgun powder was. The stuff was developed just prior to the 20th century for the express purpose of allowing shotgun shell reloaders to put in this pale green kernel powder that looked like Cream of Wheat with green mold on it, bulk for bulk, that is fill the shotgun case to the same internal level as black powder, no weighing was necessary. One could use an identical measure for both. This would allow the wads and the shot level to come up to where a good roll crimp could be made over the top shot wad. Needless to say rifle shooters used this powder as well. It was made by Du Pont, and I was still able to purchase one pound cans in the early fifties.

I have made several references to the old timers going out of their way to help me during this first sojourn into handloading. Most readers would probably think such help an ordinary event around shooting clubs. It was in fact not ordinary, but quite extraordinary. These old timers were very close to the vest with advice. These wonderful men had learned about shooting the hard way, mostly by long hard personal experience. Each one of them had their own tricks of the trade for good shooting, particularly target shooting of all kinds. Each had his own formula for bullet lube, bullet alloy, casting techniques, sight types, barrel shapes, including what beer or wine to drink before a match to settle the nerves. And they weren't about to share those tricks with anyone else. I always felt a sense of gratitude when one of these fellows dropped a helping tidbit. Of course they also knew I was no threat to them with my 45-70 Springfield shooting 9 inch groups at 100 yds. In any event it was



always a treat for me when one of these gentlemen gave me some nugget of advice.

It's time now for some then-and-now-good stuff about reloading. Right off the bat the information available about reloading tools, accessories, and how-to information is vastly different from the 40's when I started, as compared to today. To illustrate, my latest Sinclair catalog has 128 pages and 57 of those pages are devoted to handloading stuff or roughly 45% of the catalog. In contrast the 1939 Stoger catalog, the best of its day, had 512 pages and only 15 pages of reloading stuff, or .03% of the catalog. The 1951 Stoger catalog that I purchased reloading stuff from was about the same as the 1939 edition. Interestingly, the only items in the Sinclair catalog that were also in the 1939 Stoger catalog were Wilson tools. The case trimmer for $8.50 and the case gage for $3.50.

In the 1940's and 1950's there was a serious lack of good books and handloading manuals. The wonderful handloading books currently put out by bullet and powder manufacturers did not exist in that time frame. The best manual came from the Lyman Gun Sight Corporation and was titled *Ideal Hand Book.* I still have my No. 38, 1951 copy. It measured 5 1/2 by 8 inches and had 179 pages of pretty good information for the time. By today's standards it was almost primitive. Looking through my copy I find many hand written notes in the margins. One of the serious drawbacks was the lack of a description of just how to load a cartridge. It told about reloading with the 310 tong tool and not much else. Since Lyman did not make a tool at the time that used 7/8 14 dies, they were never even mentioned. At the 1951 time frame there were only 6 manufacturers of reloading tools that used 7/8 14 dies. These were Pacific, RCBS, Hollywood, Schmitt, Gee Bee, and Easton. Of these, only RCBS remains today.

In general, the lack of precision reloading information in the early days was a real problem. Most of it was poor and contradictory. The reloading Bible at the time was Phil Sharpe's *Complete Guide to Hand Loading* first published in 1937. This book was talked about at most every rap session about reloading, it was the must-have book, the Holy Grail of reloading. I asked for a copy for Christmas in 1955 and Santa must have heard me because there was a copy under the Christmas tree. Within a few days I had read it from cover to cover and, boy was I ever disappointed! About half of all the presses, bullets, and powders listed were already obsolete and not obtainable. Even by 1950's standards some of the book's pronouncements were simply wrong. More importantly, the book did not deal at all well with the procedures needed to reload cartridges. There simply wasn't a comprehensive how to do it section, for which I was sorely looking. Such information simply didn't exist. It slowly dawned on me that anyone who purchased Sharpe's book was expected to already know how to load ammunition, and this volume was a post graduate course.

Handloading grew by leaps and bounds in the late 1940's and into the 1950's. The 1950's is when benchrest shooting started to take root and serious shooters began to demand better of the press makers, bullet makers, powder makers and also cartridge case makers. These folks, to their credit, responded with some surprisingly good stuff. It was also the decade when *Precision Shooting* started to be published. Let's look at some of the differences between then and now.

Loading Presses: There were about 15 companies making reloading tools then, and about half of them were light tools that would neck size only, using their own special neck sizing dies. Needless to

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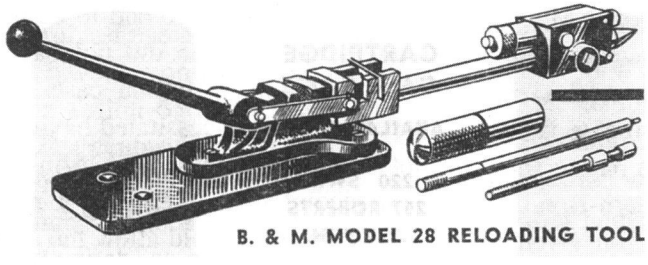
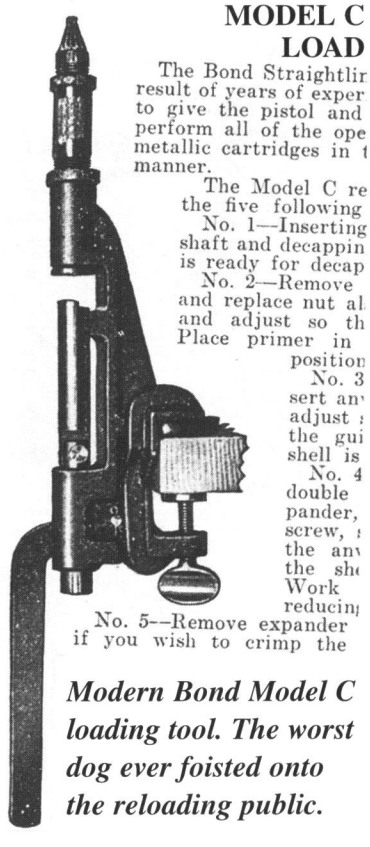


B. & M. MODEL 28 RELOADING TOOL

An excellent light neck sizing tool. Performed all functions horizontally.



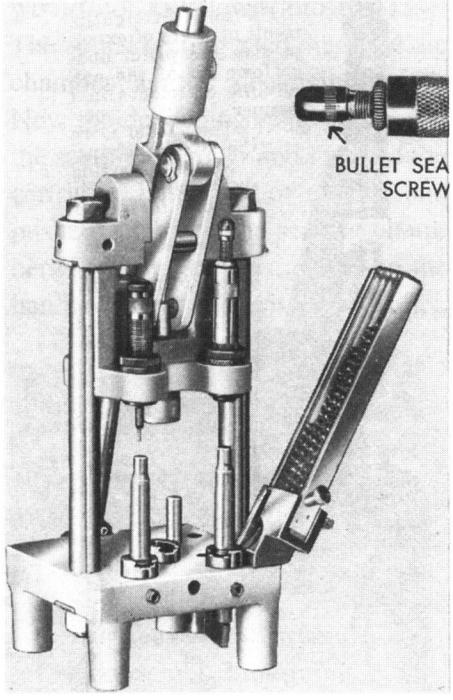
Modern Bond Model C loading tool. The worst dog ever foisted onto the reloading public.

An Abbreviated History Of Reloading

Continued

say those tools could only be used with cartridges that were going to be used in the same rifle that they were originally fired in. The cases could not be full length sized. There were separate full length sizing dies made by Lyman and Wilson, these looked like current case gages. They would full length size the outside of the case. One had to put a case into the gage and then use an arbor press, big vise, or chunk wood with a hammer. One then had to put a wood dowel into the case and pound the case out of the die. Then one could proceed with the typical neck sizing tool.

As mentioned above there were only 6 manufacturers of tools that used 7/8 14 dies. Today, virtually every reloading tool sold uses 7/8 14 dies. The Cadillac of tools was the superb Hollywood line. They were expensive, beautiful, and out of reach for the typical shooter. One of the best and probably the most popular tool of the era was the excellent Pacific Super. I still own and use two of these fine tools. Incidentally, I must confess to having a fascination for reloading tools, I have owned, and used at least 30 of them over the years. The only down side to the Pacific was the need for a separate ram for each caliber, because the shell holder was machined into the top of the ram, it did not have the capability for changing separate removable shell holders, and necessitated having to purchase a separate ram for each caliber. I have 8 different rams in a drawer. In my opinion this one feature led to its demise.



Lyman EZY-LOADER Press. My first heavy duty tool which used 7/8-14 dies. Had a superb automatic primer feed.

In the mid 1950's Fred Huntington came out with the king of tools, the magnificent Rock Chucker. The Rock Chucker quickly became the most popular tool going, and is still popular today. This tool introduced the separate shell holder on top of the ram, and today virtually all reloading tools have this feature. I have one of these that I purchased shortly after its introduction and still use it as my number one tool.

In the old days I used several Lyman Ideal Nutcracker 310 tools as well as a Lyman Ideal Tru-Line junior. This was a small turret press that used the 310 neck sizing dies.

I also owned a second model Easton Super Giant, this was a sturdy tool that angled back about 20°. It had two square section rods for the shell holder to ride on. It was an excellent design. However, it was poorly made and saw little success.

The best light neck sizing tool that I used was the Belding and Mull. It sat horizontal on the bench and was a delight to use. The worst neck sizing tool I ever used was the tool that young Jim took out of a bag to show me, the infamous Modern-Bond C. I will quote the evaluation given to the tool by none other than Phil Sharpe in his Handloading book. Quote; "This is a bench-type tool, and while capable of excellent work is slow in performance, due to its inferior design. In many ways it is impractical, but in the hands of an intelligent operator, good results can be obtained." In today's world we would call it, user unfriendly. It was a Rube Goldberg contraption of the worst kind. This dog did have one saving feature which I still own and use; on top of the die was a inside neck chamfering reamer which had a shallow angle of about 30°, with 12 flutes which were extremely hard and well made. I still use this reamer, it is the best one I have ever owned.

The first large tool using 7/8 14 dies that I owned was a Lyman Ideal Ezy-Loader Press. I purchased this tool in 1954 with money I had when I left the service. This was a tall press and rugged, it was an improved version of the earlier True Line. The operating handle was on top of the press which made it a stand up press. The press had a sliding die holder with three die stations for 7/8 14 dies. The holder was L-shaped with one die holder being between the upright guide rods, and the other two holes jutted out forward towards the operator. The problem was that the Lyman literature did not explain that the two forward die stations could not be used with full length sizing dies, the die holder would tip slightly and jam when a full length die was used in those forward holes. Also, a regular 7/8 14 die could not be used in the center hole between the upright posts. This meant that a special 7/8 14 Lyman full length die had to be purchased, and this die did not have a decapping rod or button case neck expander. This necessitated having to put the case through a neck sizing die as a second step. Eventually I made an adapter that would allow the addi-

tion of a decapping rod. I think this one drawback sunk sales of the tool after just a few years, which was too bad because it was a fine, well made press. It also came in its own metal carrying case with a carrying handle on top. I loaded thousands of rounds of match 30-06 ammunition with this press. It also had one of the first automatic priming feed systems that worked amazingly well. In fact I used the automatic priming feature exclusively for many years after I stopped using the press for loading ammo.

The next heavy press I owned and still own is the magnificent RCBS Rock Chucker. The Rock Chucker took the reloading world by storm. It became the most popular tool shortly after its introduction and is still being sold today, virtually unchanged since its introduction. I think the only changes have been the introduction of a plastic primer catcher, the original was aluminum, and the addition of a round knob on the end of the operating handle. One of these days, when I get around to it, I'll get a handle with the ball on the end to replace the straight one I now have; I think that would be a good upgrade.

The time from the 1950's to now have been heady days for reloading presses. There has been a proliferation of presses with all kinds of names and shapes, and sizes, and they are all good. I think the new Redding turret press is the culmination of the best of all the years' designs, I don't own one, but have seen them and am impressed. One of these is currently on my wish list. Not to be undone by the fact it may seem that I use a lot of old presses, I will have to confess I also own and use a Dillon 650 Progressive press, for 21st century technology.

From the 50's till now there been a number of good tools that no longer exist, such as C-H, Texan, Bair, Lachmiller, and others.

I cannot end this section on presses without acknowledging a company that undoubtedly started many thousands of shooters into the reloading game. That company was Herter's Inc. If you have never read a Herter's catalog, you have missed a rare treat. Herter was of a style of an old fashioned huckster. Everything was the best in the world at the lowest prices. It was a joy just to read his catalog. The title of the catalog was *The Authentic World Source for Fishermen, Hunters, Guides, Gunsmiths, Tacklemakers, Forest Rangers, Commercial Fishermen, Trappers, Explorers, Expeditions, and Backpackers*. Not only were there 10 or 11 presses listed, but an entire array of accessories for the reloader. All of the best quality for the cheapest prices, of course. However, in this world you get what you pay for. The least expensive C tool was "Herter's Model 3 Super Reloading Tool" for $29.97, it weighed 25 lbs. That came out to $1.19 per pound. That was the greatest bargain around. Best of all, one could purchase an entire reloading outfit ready to go for $55.47. Herter also had his label on powder, primers, bullets, dies and anything else you can think of. In all seriousness, Herter made reloading available to many thousands of shooters that would have never gotten started, if not for Herter's giving them their first very affordable start. Yup! I confess, I also bought some of his incomparable stuff.

Cartridge loading dies: As stated above most of the early presses used neck sizing dies only. These were unique to the manufacturer and not interchangeable. Reloading really got started when interchangeable 7/8 14 dies became available, along with presses made for them. The designation 7/8 14 means that there is a thread on the outside which is 7/8 inches in diameter with 14 threads to the inch. These dies are now the industry standard and all presses with rare exception, are designed to use them.

The early dies were a mixed bag in terms of quality, many were cheaply made on screw machines instead of more accurate and sophisticated machinery. Many of the early dies had poor dimensional accuracy, and many were chrome plated, which in some cases added to the poor dimensional accuracy. The best dies were not usually plated, however my first set of dies were for the 30-06, were plated, and made by C-H. I loaded thousands of rounds of excellent 30-06 match ammunition good

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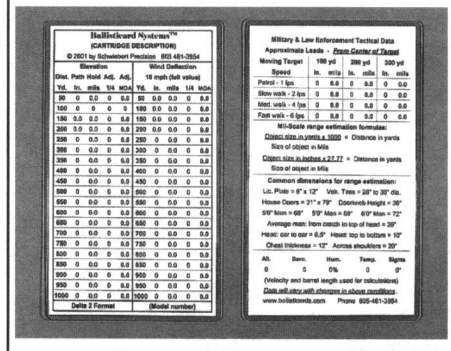

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RIFLE ACCURACY BOOKS

Potpourri!

THE ACCURATE RIFLE, by Warren Page. Originally published in 1973, and immediately recognized as one of the classic works on the subject of rifle accuracy, the book was long out of print. Republished in 1996, the reprint carries every word and photo of the 240 page original edition, with an updating chapter authored by Dave Brennan, the Editor of *Precision Shooting* magazine. Warren Page was one of the giants of rifle accuracy in the second half of the 20th century, and helped pioneer the introduction of several of today's modern high-velocity cartridges, such as the .243 Winchester and the 7mm Remington Magnum. Less than 1000 copies of the reprint remain in stock. Softcover. **$17.95**

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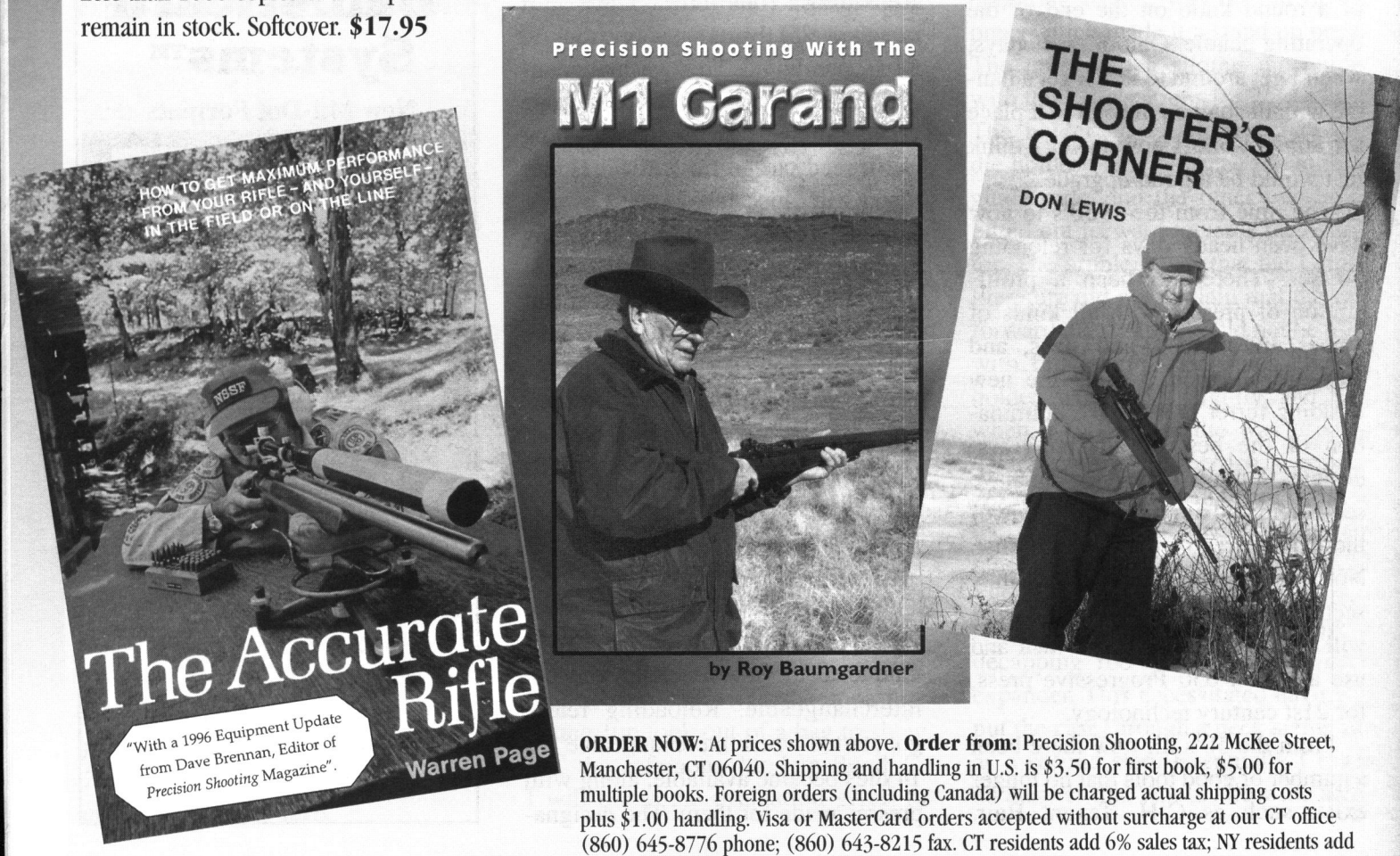

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An Abbreviated History Of Reloading

Continued from page 23

enough to win many matches with those dies. I still own those dies, however I would never load with them today, because today's dies are far more accurate and finely made. My Redding benchrest dies load a cartridge to a degree of accuracy and tolerance way beyond those old C-H dies.

I never did check the bullet run out or overall length accuracy. I just shot the ammo and won matches. That was all that counted in those days. One must remember the targets were bigger in the old days, one did not need extreme accuracy to win matches with those old targets from 200 to 600 yards. With today's smaller targets it's absolutely essential to load extremely accurate ammunition. There is no question that I could not load ammo to win matches with my Palma rifle, using 1950's dies. The worst die in the old days was the seating die, not so much the sizing die, although the sizing die did over-size the case necks unmercifully. The seating stems in the old seating dies varied in design and quality, and most were not in line with the case centerline. I never tightened the seating stem. I would let it float. That way if the stem were off to one side when tightened, which it mostly was, it had a chance of being near center when used to seat bullets.

Today's benchrest dies that hold the case and bullet inline prior to seating are a marvel, something that we could only dream about in the old days. My Redding benchrest dies turn out accurate bullet seating the like of which were not obtainable in the old days, except for hand held inline dies. Modern dies, while they look like older dies, are vastly superior to the old ones in every way that one can measure the final product.

Powder measures: The one item that hasn't changed much over the years are powder measures. Basically most all measures are the familiar rotary drum types. The Lyman 55 was called the 5 when the measure was still a one piece casting and then the 55 when the removable plastic powder hopper was introduced. This measure has stood the passage of time. Remarkably, it's been around for over a century and still going strong. One of the reasons for its popularity is that the inside of the drum is almost hollow and it has 3 different slides nested into the drum. These slides can be moved out to the right side one at a time or all at once, giving the measure an extremely fine adjustment from very small pistol charges to very large rifle charges all in one measure. I have personally owned more than a dozen different measures and the Lyman still stands out as one of the best.

Another measure I liked was the Belding and Mull. This excellent measure has withstood the test of time. It is an excellent measure that is still being made by Belding and Mull. It is not a drum type measure. It had a glass faced powder transfer charger that moved from under the powder hopper over to the right and dumped powder into a hand held charge tube. It is excellent for large grained powders and now used extensively by black powder shooters.

One other I have owned and used was the old style Redding measure. It was a rotary drum type with an unusually large diameter drum. It had a dial on the side of the drum that looked like the combination dial on my gun safe, that was used to change the charges. It also had a rubber ring to avoid cutting powder kernels. This measure was extremely accurate and easy to change different powder weights. This was one of my favorites and I have always regretted selling it.

My current mainstays are two SAECO measures that were upgraded by the late Seely Masker. He put on micrometer adjusters and powder baffles. SAECO measures were introduced in 1947 and became very popular because they were ground and polished to extremely fine tolerances and finishes and worked exceptionally well. In case you're wondering what SAECO stand for, it's Santa Anita Engineering Company.

There were many other measures down through the years, too numerous to mention, some good and some bad.

Powder scales: There is not a lot to say about powder scales, I have owned about a dozen, and have 5 at the present time. I never had a bad powder scale from the oldest Pacific where you had to use separate weights to set the powder charge to the latest electronic wizards.

Bullets: Of all of the items involved in handloading, none had undergone such a profound change

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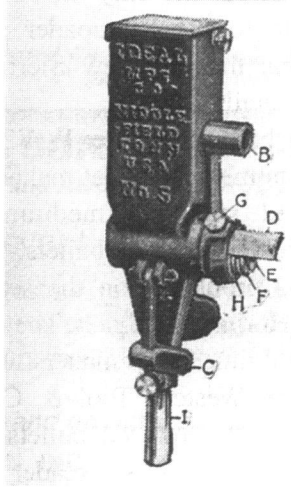

Ideal No. 5 measure. Forerunner of the Lyman No. 55.

An Abbreviated History Of Reloading

Continued

as the bullet itself. When I started reloading, almost none of the names we associate with bullets today even existed. The two competitive games that were alive and well attended were smallbore prone and over the course highpower shooting. I did both. Highpower shooting from 200 to 600 yards was the most popular at the time, and of course the cartridge of choice was the 30-06 and virtually nothing else was used, unlike today's proliferation of multi calibers seen at every shoot except Palma shooting which is .308 Win. only.

The 30-06 was the king of the hill and military bullets in the form of the prewar Frankford arsenal 172 grain boatail bullet was the standard against which all bullets were measured. The GI National Match 30-06 did not arrive until the late 1950's and the .308 Win. had not arrived on the scene as yet. When I shot on the US Coast Guard team during the 1954 season we had only 150 grain ball ammunition available to use, even out at 1000 yards. There was excellent commercial ammunition available, but the only match bullet available to the handloader at the time was the then-new Sierra 180 grain boatail.

Both before and after WW2 there were a number of bullet makers that produced small to medium size quantities of custom bullets. There were no producers on the scale of Sierra, Hornady or Speer. The oldest of the old time bullet makers was the legendary Western Tool & Copper Works; they produced bullets from 1914 to the 1940's. Any reader of old *Riflemen* magazines would recognize the name. There were others that came and went, names like, Moffat & Schmuck, Jordan, Hi-Precision, Milo Hill, Modern Gun Shop, Pearson's Gun Shop, M & H Sporting Goods Co., Fred Barnes, and Sisk. Of this group only Barnes is still making bullets. Interestingly, several small bullet makers continued making .22 caliber bullets throughout WW2 by using 22 rimfire empty brass for bullet jackets, the reason being that copper and brass all went to the war effort and almost none was available for any civilian use.

It was not until the late 1950's that excellent and accurate bullets started to appear. There was a demand from shooters for accurate bullets, this demand came from two sources. The first was from the over the course shooters and second, the fledgling benchrest shooting game. The bullet makers, to their credit, stepped up to the challenge. The result was not an evolution, but a revolution. The new accurate bullets underwent a strange design change, "hollow points," no accurate bullet had ever previously had a hollow point. We shooters looked at these with much skepticism. Hollow points were for hunting bullets, who ever heard of hollow point match bullets?

The 168 grain Sierra International (now called Matchking) .30 caliber bullet appeared on the scene about 1959 as I recall. I purchased my first box of 100 of these bullets in the summer of 1960. I planned to use them at the upcoming Damaiscotta (Maine) Labor Day re-entry shoot. The shoot consisted of both smallbore .22 at 100 yards (fired on the standard NRA 100 yard target), and centerfire rifles at 200 yards also on the 100 yard smallbore target. Ten shots were fired on the smallbore 22 range and 5 shots on the centerfire 200 yard range.

For those of you that don't remember what re-entry shoots were, let me tell you what you missed. The re-entry shoot lasted for two days on the Labor Day weekend. There were actually 3 divisions, the smallbore prone at 100 yards, the centerfire prone at 200 yards, and finally the smallbore offhand at 100 yards. Re-entry meant that each shooter could buy as many targets as he or she wanted at 50 cents each and shoot any time of the day when a new ten minute relay started. Ten minute relays went on from morning to afternoon, there were no sighters unless you wanted to use one of the 50 cent targets as a sighter, in which case you would have ten sighters. The smallbore competition consisted of 5 divisions which were chosen on a Kenebec system so all shooters had a chance of winning something. The centerfire and the offhand competition consisted of one division each. Each division had 5 prizes and the prizes were fabulous, such things as rifles, shotguns, spotting scopes, rifle scopes, and all sorts of wonderful accessories. And if this wasn't good enough there was a clambake on the last day of the shoot. There were steamed clams, boiled lobsters caught that very day, french fries, homemade apple pie and brownies, plus all the beer, soft drinks, and coffee you could drink. This sumptuous feast was a $1.50 add on to the registration fee. That folks, is what a re-entry shoot was all about.

I had shot for several years at Damariscotta in both prone competitions. In the centerfire class I always used my 30-06 prone rifle. This was a wonderfully accurate rifle, consisting of a 1917 Danzig Mauser action, a superb Buhmiller barrel, and a custom Carl Johnson stock, I used a 15X Lyman Super-Targetspot scope on it. With the best ammunition I could load I never came close to placing in the top 5 winners. Actually, this prone centerfire competition was always won by smaller calibers featuring the wonderful line-up of such calibers as the .219 Donaldson

Wasp, the .222 Rem., .22 K Hornet, 25 Krag, and the 22-250. These rifles and caliber were the forerunners to the benchrest sport which was getting started with just such calibers.

In anticipation of going to the shoot I decided to use 40 of the 100 Sierra 168 grain International bullets I had purchased to work up a load for the upcoming match. I had a large quantity of surplus $1.00 a pound 4831 powder and decided to use this to work up a load with the 168 grain Sierras. I had previously used 58 grains of 4831 in the 30-06 with the 172 grain GI match bullets with good results; these shot just about 2 or 3 inch groups off the bench at 200 yards. I loaded the 168 grain Sierras with 4831, and seated the bullets to the same OAL as the GI match bullets.

The next weekend I went to the range and set up a 100 yard smallbore target at 200 yards duplicating what I would be facing at the Damariscotta match. I had left my spotting scope home that day, so I only had the 15X Lyman Super-Target spot rifle scope to spot with. The rifle had been already zeroed in with the GI bullets. I fired one fouling shot from the benchrest and then proceeded to shoot 5 shots for a group. I became quite frustrated because I could only see one hole in the black after firing the first 5 shots with the 15X scope. I then raised up the scope 1 1/2 minutes and shot another 5 shots, and damn, I still could only see one hole with the 15X scope. I decided what was necessary was to use a target with a small black and large white so I could easily see all the shots in the white. I lugged such a target with me to the 200 yard butts to change targets.

When I arrived at the target and looked up, I stood in stunned disbelief. The reason I had been unable to see more than one hole on the target was because there was only one hole for each 5 shots. The groups were about 3/4 inches center to center. I had never witnessed or heard of such small groups with any 30-06. I knew I had just witnessed a revolution in 30 caliber bullet making. It turned out that the Sierra folks had developed this bullet for 300 meter ISU competition.

At Damariscotta the next weekend I didn't get around to the centerfire match until late in second day and found that there were only 5 relays left, I had planned to shoot 6 or 7 relays, this meant I didn't have a relay to sight in with. My first shot on the first target was a 9 at six o'clock, I raised the elevation two clicks and got a 10. I ended the 5 targets with a score of 249-11X's and came in fifth place, keep in mind that the X ring at 200 yards was 1/2 MOA and the ten ring was 1 MOA. The fifth place prize was a one year subscription to *Precision Shooting*. I still have the congratulatory letter from Phil Teachout, the editor of *Precision Shooting* in 1960. The accuracy of the 168 grain Matchking was and still is phenomenal, I have fired many thousands of those bullets since 1960 and they still work as well today as the first time I used them.

I have used bullets in many calibers, manufactured by many bullet makers in the 45 years I've been at the game, and I never cease to be amazed at the seemingly constant improvement that goes on in bullet making, both for match, and benchrest shooting. In addition, the revolution in hunting bullets in recent years is also amazing. It seems that almost every time I pick up a hunting magazine there is a new technology hunting bullet available both in loaded factory cartridges and for handloaders.

I cannot end this section on bullet making without touching on one of the most bizarre bullets ever offered to the shooting public. The offering came from the famous Herter Company mentioned earlier. The bullet was called a Wasp Sonic and was offered in 30 caliber only. It seems that back in the 60's supersonic aircraft started to be designed with a coke bottle shape to enable the aircraft to transition into the supersonic speed range easily. Well, wouldn't you know it, Herter thought that a coke bottle shaped bullet would be just the thing for enhanced accuracy and velocity. A friend had bought a box and gave me 40 of the little devils. Did they work as advertised? Well, they were about as good as the Modern Bond loading press. For those of you that like to know group sizes, they shot about 4 inch groups from the bench at 100 yards.

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An Abbreviated History Of Reloading

Continued

Powders: Powders were very much like bullets, except powders evolved as an evolution, not a revolution. What I mean is that there are some popular powders today that were available when I started out. There were very few powders available to the handloader when I started in the game. There were just three suppliers of powder in those days. There was Du Pont, Hercules, and Western. Of these Du Pont offered powders that are still for the most part available today. Du Pont was the largest producer of powders and offered the following rifle powders, IMR 4198, IMR 3031, IMR 4320, IMR 4895, IMR 4064, IMR 4350, and Sporting Rifle 4759. IMR stand for Improved Military Rifle. Hercules offered two powders for rifle cartridges, the famous and excellent HiVel #2 and the not so famous 2400. Western was just introducing a single ball powder. As you can count there were exactly 10 rifle powders available in 1950. The IMR powders have withstood the test of time and are still some of the best going. My two favorite powders still are IMR 4895 and IMR 4064. An upstart powder company was getting into the fray about this time, it was called Hodgdon. They started by selling only surplus powders. As I recall, the first powder they offered was called DATA powder. This powder used 4350 data to guide the handloader, later it was called 4831 and new data was issued as it was slower than 4350. The big draw to this powder was the cost, $1.00 a pound. It turned out to be a superb powder for heavy bullets in the 30-06. Over the years I have also used many other powders put out by many other powder makers, and all with excellent results.

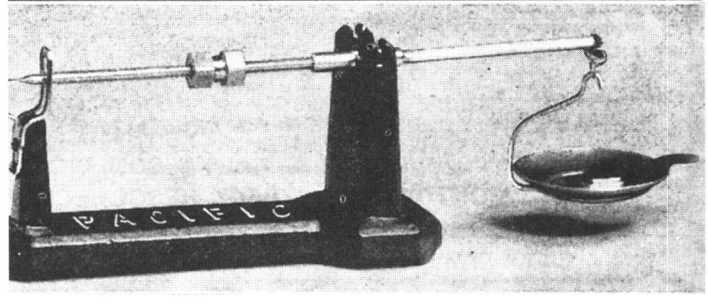
Contrast the 3 companies and 10 available powders above with the array of companies producing rifle powders in mind-boggling numbers. A quick examination of the current catalogs shows the following companies: Hodgdon Powder Co., Vihtavouri Oy, Alliant Powder, Accurate Smokeless Powers, IMR Smokeless Powder, and off and on Norma Smokeless Powder. These folks produce about 59 different powders. As with the bullets, the match shooters and benchresters demanded more and better. The hunting folks were also partly responsible with their demands for more velocity for magnums and large caliber cartridges like the .458 Win.

Cartridge cases: Ah! We are back to those little brass bottles that hold the powder and bullets. When I started highpower shooting in the late 1940's every local club had loads of DCM surplus 30-06 ammunition, both with and without corrosive primers. I can't begin to tell you how many rounds of Denver 42 ammo I fired in my 1903 Springfield, after that came a variety of non corrosive 30-06. All the empty cases were saved for reloading, the corrosive cases were soaked in a tub of hot water to dissolve any remaining corrosive salts from inside the cases, at least I hoped it would.

These surplus 30-06 cases were all there was for most of us. There was absolutely no examination given to the case in terms of wall thickness, weight, or overall length. The GI primers were punched out and the primer pockets reamed only because the primers were crimped in and one could not seat a new primer without reaming, and that was the only case preparation except for chamfering the inside of the neck to avoid scraping the bullet when seating. In those days the accuracy of reloaded match ammunition was not nearly as good as what is used today, however, it was not necessary, the targets were much bigger, the black bullseye had a scoring value of 5, all of it, later the V ring was added in the center, but the targets were still big.

Two things happened about the same time: the introduction of the .308 Win. and the changing of the targets. They got smaller, actually the black got bigger and the scoring rings got smaller. We now had an X ring, 10 ring, nine ring, and eight ring all in the black bullseye. The game just got tougher and accuracy had to improve. Cartridge cases were looked at as never before, and they were found to be wanting. My friend and gunsmith, Crieghton Audette, found through testing that non uniformity of the case walls were detrimental to accuracy and developed a wonderful tool to check case wall thicknesses, WOW, I ended up throwing away 4 out of every 10 new cases, because the case wall thicknesses were out more than .003 inches. It was the same for the three most popular brands of cases.

PACIFIC POWDER AND BULLET SCALE



An early popular powder scale. Separate weights had to be used to set up for each new powder charge.

One time when I was up at Creighton's shop and we were discussing this problem, he took out 2 cases from a drawer and put them in my hand. They were 7mm and 8mm German military cases made by DWM in the 1930's. Both of these cases had uniform wall thicknesses, right on the money, not even a 1/2 thousandth difference. He went on to say that all of the military cases were like that. How come the difference between the 1930's excellence and the modern junk? It was in the manufacturing methods, the old cases were drawn in 4 or 5 steps, and the modern case is impact extruded, a much faster and less expensive method without the case wall accuracy.

Once more the Europeans came to the rescue, in the names of Lapua, and Norma. I have loaded thousands of rounds of Palma ammunition with .308 Lapua cases, I check just one case out of each box of 500. The case wall accuracy is the same as the 1930's DWM. I have noticed lately that some of the U.S. brass is getting much better.

The other great aspect of today's cartridge case manufacturing is the availability of a vast variety of obsolete and new exotic cases from several U.S. specialty Companies. When I started out, many 19th century and early 20th century cases were no longer available, and could only be made from other still in production cases. John Connelly's wonderful book *The Handloaders Manual of Cartridges Conversion* was a must for those of us with rifles that shot odd ball cartridges. Now we have sources of new brass including basic cases that can be made into a variety of useful cartridges.

Primers: Primers have almost always been uniform and excellent, except for some years ago when some manufacturing methods underwent a change and there was a time when one or two manufacturers had growing pains. As of right now primers are just fantastically good. Some people may argue that, but I never have had problems. I know most of us have favorites, myself included.

Loading manuals: This is another area were there has been a revolution. When I put my little 1950 Lyman handloading manual next to the stack of modern manuals I now possess, I just shake my head and wonder how I ever got started. There was such an unbelievable lack of solid information available when I started. Lots of information came from word of mouth with no solid back up. I remember a friend using a duplex load of two powders in a 30-06 case behind a 210 grain cast lead bullet and blew up his model 70 Winchester action on the first shot. He had obtained the loading data, word of mouth, from a "reliable source". Today's world also includes the internet with its blizzard of information. And last but not least, one needs only pick up the phone and get technical information from bullet makers, powder makers, reloading tool makers, etc. etc. The modern manuals, the internet, and customer relations folks at various companies are a source of highly reliable information the likes of which we early handloaders could not even dream of.

Chronographs: Yes folks, there were chronographs available in 1950-51 time frame. They were heavy, cumbersome, expensive, and difficult to use. There were three available to the general shooting public. There were others, used by the ammunition factories, etc. that were large professional models and generally not available to the shooting public. The three that were available to the reloading public were the Cramer, the Owen, and the Long.

The Cramer was offered by the Cramer Bullet Mold Co. and consisted of 4 parts. It needed a 6 volt automobile battery and 4 D cell batteries. The bullet was fired through two targets or contact screens and the time was measured on a millisecond meter. Charts were issued to enable the shooter to interpret milliseconds into FPS.

The Owen Electronic Chronograph was a product of the Hollywood Gun Shop. The Owen was quite large and required the use of a 6 volt "hot shot" or automobile battery as well as five 45 volt "B" batteries. Care had to be taken with the "B" batteries as a severe shock could result from the 225 volts. The screens were

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An Abbreviated History Of Reloading

Continued

aluminum foil about 1/4 inch wide and spaced anywhere from 5 to 25 feet apart. The bullet had to break both strips. I imagine you can see the problems of shooting through both screens 1/4 inch wide 25 feet apart. The velocity was measured with a millisecond meter and needed charts to transfer the time into FPS. The aluminum strips had to be replaced after each shot. Recalibration was frequently needed.

The Long Chronograph was manufactured by Mr. Long in New Jersey. The Long was a electro-mechanical device hooked up to house current plus a 6 volt battery lantern. Two separate screens either of wires or aluminum foil were used. The device was a box with a turntable mounted on top. The turntable rotated at very high speeds and had a paper chart attached to it similar to a record on a turntable. There were two marks made on the rotating chart when the bullets went through the screens. The distance between the two marks was measured and a chart was used to determine the velocity as a function of the distance between the marks. The chart had to be replaced after each shot.

Now aren't you just happy as can be that we have such beautiful chronographs today?

The story I have related is but a thumb nail sketch of the reloading history according to my own personal experiences from the 1940's. I did not attempt to get into pistol and shotgun reloading because *Precision Shooting* and *The Accurate Rifle* deal primarily with rifle information. In addition, much of the information is redundant. Reloading has been a source of pleasure and much satisfaction for me these past 54 years. Although different, the joy of reloading in the early days was no less than the joy today. I am always trying new things and new accessories, I never cease to be amazed at the new items and accessories that are continually being offered to the handloader. The major difference between today and yesteryear is not how do I get started? But rather where do I start? I think perhaps in some ways it's tougher to start today in terms of: what tool, what bullet, what powder, what dies, what cases, what primers, and last but not least, what cartridge to start with. The only advantage we had in the old days, and a slim one at best, was fewer choices. It was easier to get started. All one needed was a Ideal tong tool, a few cases, a can of powder, a box of primers, and a jar of home made bullet lube. Ahh, for the simplicity of the old days!

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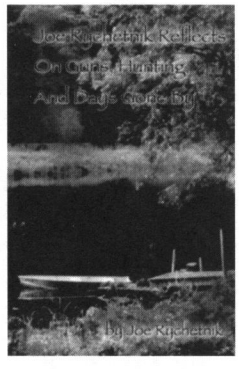

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ADMIRATION

BY 'DOCTARI'
(Photos by Kevin & Catherine Robertson)

There are many whom I admire. Generally, they are those who can so easily and well, accomplish the sporting activities I most enjoy — and in this regard, there are indeed many 'chapters' to my totally 'blood sports orientated' book of life. For example, I'd love to be gifted with the hand/eye co-ordination so necessary for the handling of a shotgun 'really well'. I'd also like to be able to cast a fly with the ease and precision of some of the fly-fishing 'Pro's' I've enjoyed watching on ESPN's Outdoors TV shows. To be able to accomplish the odd 'really good', long-range rifle shot, without too much practice, would also be 'a real pleasure'. And then, to be able to write about these various topics, as Hemingway, Ruark, O'Connor and Keith so ably did, would surly be the cream on the cake. Coming to think about it, my African trackers also rank highly on my 'admiration' list.

In reality, I'm actually not all that bad a tracker myself — certainly not after more than two decades of living on an African farm, close to some of the finest 'big game' country the Dark Continent has to offer. Over that time I was fortunate and indeed privileged to have enjoyed, for both pleasure and profit, all the 'sporting pursuits' for which Africa is famous. And as a result, I eventually learned how to follow the spoor of 'Dagga Boys' as they meandered, apparently aimlessly at times, through the infamous Jesse bush. Bull elephant, heavily maned lion, a leopard or two and even some of the more desirable antelope species like eland, kudu and sable I have also tracked, with some success. Despite this, I still rank myself as an absolute 'greenhorn' in this highly specialized art form. Special is the reason for my apparently harsh self-criticism. For almost 20 years he was my numero uno tracker and although he never once 'rubbed it in', he was a constant reminder of the Caucasian's pathetic inability to follow an animal's spoor, really well. And so it was whenever I compare myself to him and his truly remarkable ability in this field (which was often), that I wouldn't even consider myself worthy to qualify as a beginner!

A Mozambiquean by birth, Special was a fit and muscular-looking teenager when he simply 'arrived', one hot summers morning, at the Zimbabwean cattle ranch I was managing. This was about a year after that country's independence in 1980. The

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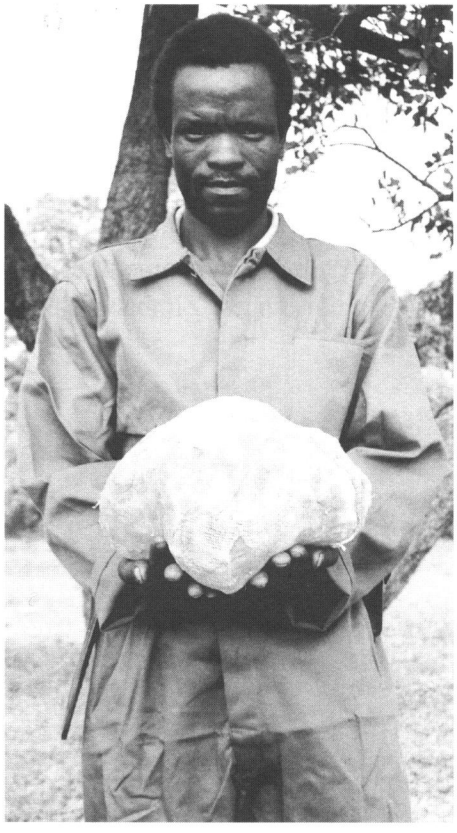

***Special holding a plaster cast of an elephant brain. A similar picture appears in my book,* The Perfect Shot.**

Admiration

Continued

long, so-called 'liberation from colonialism' bush war was finally over and the country's economy was starting to recover. Robert Mugabe, the newly elected president, had extended a hand of reconciliation to the 4000 odd white commercial farmers who were still on their land after enduring so much throughout that protracted political altercation. He did this because he obviously knew that a viable agricultural industry was the only reliable path to economic recovery and food self-sufficiency, and he consequently encouraged all of Zimbabwe's white farmers to stay on their land and farm enthusiastically. (Ironically, 22 years down the road, Mugabe would accuse these same farmers — the very same ones who had rebuilt the economy of the country and successfully turned Zimbabwe into 'the bread basket' of Southern Africa, of 'stealing the local African's land'. He then orchestrated a politically motivated 'land grab' which ultimately resulted in all of us being 'displaced' from the land that was rightfully ours, often under the most unpleasant and sometimes violent circumstances. Zimbabwe is an independent African country and is now bankrupt and its population of 11 odd million people face mass starvation. There is no fuel, unemployment stands at 80%, inflation exceeds 380%, the once thriving agricultural industry has collapsed and the economy lies in ruin. And that, we're supposed to believe, is African progress for you!)

For a time however (the mid 1980's and 1990's), Zimbabwean agriculture, particularly the cattle industry, boomed. As the local veterinarian in a rural farming community, a ranch manager for my parents-in-law and in my own right, an emerging cattleman, I found myself well placed to take advantage of this situation. As I was in need of additional labor at that time, I 'put the word out' and it was through the remarkably efficient 'bush telegraph' system that Special had heard I was 'hiring'.

Right from the onset, I simply liked the look of Special so I employed him as a 'fencer' cum herdsman. Halstead, the 3500-acre property that my wife Catherine and I purchased at around that time was rundown and neglected. This was because it had been abandoned during the latter half of the bush war and as a result most of the property's barbed wire fencing had been stolen, while what hadn't, was badly rusted and in need of replacing. Special, it soon turned out, was excellent at this 'hard on the hands' task. I found him to be hard working, honest and of an extremely pleasant disposition. He also had a delightful sense of humor — a trait not all that common amongst the rural African, especially when viewed from a European's perspective.

With time, Special moved up the employment ladder. When I noticed he was good with all species of animals, he became my veterinary 'assistant'. At the weekly clinic that I used to conduct in those long ago days, he would help me by holding the dogs and cats that came in for either examination or vaccinations. He'd also assist me with any operations that needed to be performed. On veterinary 'call-outs', he became a most useful, 'right-hand-man', capable of assisting with the many different and fairly complex procedures such occasions usually required.

When I started breeding stud Beefmaster cattle, Special became my 'estrus spotter' — an absolutely vital task for the artificial insemination program so necessary for getting this project up and running.

Hunting trips, to the nearby Zambezi Valley, were an extremely important part of our rural way of life and it was during one such trip — the very first one that Special ever went on, that I noticed he was indeed 'special'. Initially, it was his eyesight that caught my attention, for it was truly phenomenal. Up until that time, I had always considered myself to have reasonably good 'bush eyes' — but Special always seemed to see our quarry first. He also noticed and would point out to me, many animals which I had failed to see.

Most of our initial hunts together took place in the Makuti Safari Area. Set in the rolling foothills of the Zambezi Valley escarpment, it was there that Special's exceptional eyesight excelled. Due to the rugged and broken nature of the terrain, our hunting method would be to climb one of the numerous hills or rocky ridges that occur throughout this area, so as to be able to 'glass' the surrounding countryside for our quarry. From such an elevated vantage point, Special would slowly, over a period of a couple of minutes, do a 'three-sixty' as we used to call it. In Shona, the local African language, he would then call out to me all that he had seen. Pointing in

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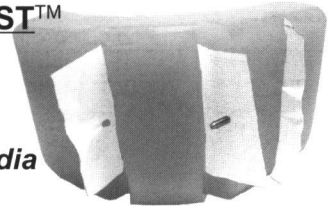

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their respective directions, he would for example say, ***'two noro mafazi*** (kudu cows), ***one mofu bull*** (an eland bull), ***span mara*** (a herd of impala), ***six mbizi*** (zebra) ***and four mafazi nzou*** (cow elephants). On many an occasion, I'm embarrassed to admit, I could not see anything — not even the elephants! With the greatest of patience Special would then direct my gaze, by 'hopping' it from easily visible landmarks until I could eventually make out whatever it was that he had seen. Most times it would only be some body part of a partly obscured animal, a mile or more away. All this he would do without the aid of binoculars, and even though I would use my 8 x 30 Swarovski's on such occasions, I often still had difficulty in seeing what he apparently so clearly could.

With regards to Special's and his remarkable eyesight, one incident sticks clearly in my mind. A safari client and I were in the Zambezi Valley, looking for a trophy sized impala ram. Our hunting method was to slowly cruise the 'river road' in my hunting vehicle, late in the afternoon. As was customary, Special was perched behind me, on the hunting seat that was bolted onto the vehicle's open back. On the Nyakasanga floodplain, a broad and barren stretch of overgrazed land, right next to the mighty Zambezi river, we spotted a lone male impala, at least 400 paces away, standing all on his own, right out in the open. From that distance, his horns looked good, so I quickly slowed to a halt — but even before the Toyota Landcruiser came to a stop, Special leaned forward to whisper in my ear. ***'He is no good as a trophy because the tip of his left horn is broken off'.*** To this day it still amazes me that he was able to see this. Through my Swarovski's I could see that he was correct — a two-inch length piece of the left horn was indeed missing. And as for my client, I'm sure he still thinks we were just too lazy to stalk that particular impala ram that evening. To him, both horns were of the same length, even through an expensive pair of 10 x 40's!

Special's eyesight may have been phenomenal — but it was this tracking ability that were to become his trademark. He could track a lone buffalo bull, through the most difficult of 'tracking terrain' imaginable, as fast as I could walk — and I mean 'stepping it out', not just an idle, Sunday afternoon stroll. On many occasions, it appeared to me as if he would become 'one' with our quarry. Often while 'on spoor', Special would suddenly stop, and for a minute or two, just stand there, 'taking in' the surroundings. He would then branch off from the line of the spoor, in a completely different direction, walking quickly. When he first did this, I was inexperienced and foolish enough to question his intentions. I soon learned to shut up and give Special his lead. In almost every case we would come across our quarry's spoor again — and in doing so, we were invariably a lot closer to it. Special had it seemed, 'thought' like the animal we were tracking — and in so doing, he had 'guessed', with almost 100% surety, where it was going. Just how he did this, I never came to figure out, especially as he sometimes did this in safari areas that were completely new and totally unexplored to the both of us.

Many of my hunting clients weren't all that bad trackers themselves — and I really used to enjoy it when they too would 'get involved' in the hunt by trying to do a bit of tracking. Some were good enough at this art to realize when Special was 'doing his own thing' and heading off in a different direction.

'Trust him, he knows what he's doing', was all I ever needed to say — and I was invariably right.

Special was illiterate yet he could 'read' the bush and analyze it, as effectively as a New York stockbroker would a copy of *The Wall Street Journal* — and what a pleasure

Continued on next page

Special could climb any tree. Here he is at the top of one in which we're hanging a lion bait.

Admiration

Continued

and privilege it was for me to be able to learn from him for he was indeed a professor 'of the bush'.

Special loves to hunt buffalo almost as much as I do. In this regard, I have in the past even likened him to the human equivalent of a 'pointing' hunting dog for he could 'sniff' them out in the thickest, most inhospitable of cover just as a Springer Spaniel would a woodcock or ruffled grouse. At such times, our 'eyes' and facial expressions were all that was needed for him and I to communicate with each other. We could 'read' each other so well in such exciting situations that we never needed to talk and I like to believe we made an effective combination.

In my opinion, the greatest test of Special's tracking abilities did not occur in the 'bush' — but on my farm. The hot summer months when the Zambezi Valley was closed for hunting, was my 'vetting' and farming season. For many years the growing of irrigated Virginia tobacco was one of my main farming activities. The AIDS epidemic then started to make its presence felt within the local population, and my farming life, in a bizarre sort of way, started to become a misery. As the death toll from this deadly viral disease quickly escalated, so did the theft of my aluminum irrigation pipes — and the reason for this was that they were being melted down and recast in the form of coffin handles! So bad did these thefts eventually become that I was forced to employ six guards just to protect my expensive investment. Despite this, the thefts continued and this frustrated me no end. One morning, the loss of yet another four lengths of six inch diameter irrigation pipe was reported to me — and I went to investigate. At the crime scene, I noticed a suspicious looking human footprint. My guards all wore gumboots with a distinctive tread pattern. The one I had noticed was different. It was obviously that of the pipe thief and on the spur of the moment I decided to try and track the culprit down.

My safari crew and the 10-ton lorry that used to take my safari equipment into the Zambezi Valley. Each had his own nickname.

To do this, I went and collected Special. I showed him the single, suspicious-looking footprint and simply asked him to follow it. Six hours later, we were standing at the front door of a house in the local township, half a dozen miles away. As usual, Special's tracking performance had been magnificent. He had been able to decipher and follow that particular human spoor from amongst those of the many thousands of other 'locals' who also inhabited that particular township. To this day I can still remember the look on the culprits face as he opened the front door of his house. It was a mixture of disbelief, shock and terror! Like a jackrabbit, he took off at the sight of me — and in so doing he 'ran-right-out' of his shoes. We retrieved them as evidence for the pattern on their soles was the same as those of the spoor we had for so long been following! Unfortunately, my expensive irrigation pipes had already been chopped up into pieces, but the culprit was eventually caught and for a time the thievery stopped — thanks to Special and his amazing tracking ability.

Over the years, my safari crew became a close-knit unit. Each member had an important part to play in our hunting operation and as a result, each eventually got to earn an appropriate and meaningful nickname. For example, my safari camp waiter was always talkative and jovial. He also had protruding, buckteeth and because of this, he became know as ***'Ngwenja'*** — the Shona name for a crocodile and so called because of his 'big mouth' and prominent teeth.

The name my staff used to call me was ***'Nzou'*** — the mighty elephant. For many years I believed this was because of my strength, intelligence and long, 'never-forget-anything' memory. Imagine my disappointment when I recently overheard my safari crew discussing my name with the staff of a fellow PH who was visiting our camp. ***'Because of his big stomach!'*** was the explanation given amidst much laughter and thigh slapping mirth!

Special's nickname was ***'N'bada'***, the leopard. He quite rightfully earned this from his ability to climb trees. After buffalo, these spotted felines are my second most favorite dangerous game animal. They were frequently our quarry and in order to hunt them, baits were hung. Lion also frequented the safari areas where such activities

took place so care had to be taken whenever selecting a suitable bait tree. Such a tree had to be too difficult for lion to climb, otherwise they would steal our baits. Special, I was soon to discover, could climb any tree. He also had a good head for heights so he quite naturally became my principle, 'bait hanger'. In many ways he was so in tune with the bush, just like a leopard, that this nickname was I suppose, most appropriate.

Shortly after entering into my employment, Special took a wife and about a year later I can recall him telling me proudly that he was the father of a son whom he named Nico. Over the years I watched Nico grow up on Halstead. He attended the school I used to run for my labor's children and he then went on to the local high school in Karoi, the nearby town.

I like to believe that I looked after my large agricultural labor force well. For each family I used to plough, fertilize and plant two acres of corn that was theirs to do with as they pleased. I also used to encourage them to grow vegetables and raise chickens and rabbits. Whenever we slaughtered a steer, they used to purchase beef at cost. I also employed a farm 'health worker' and ran a clinic — and so it was in this type of environment that Nico grew to become a strong young man.

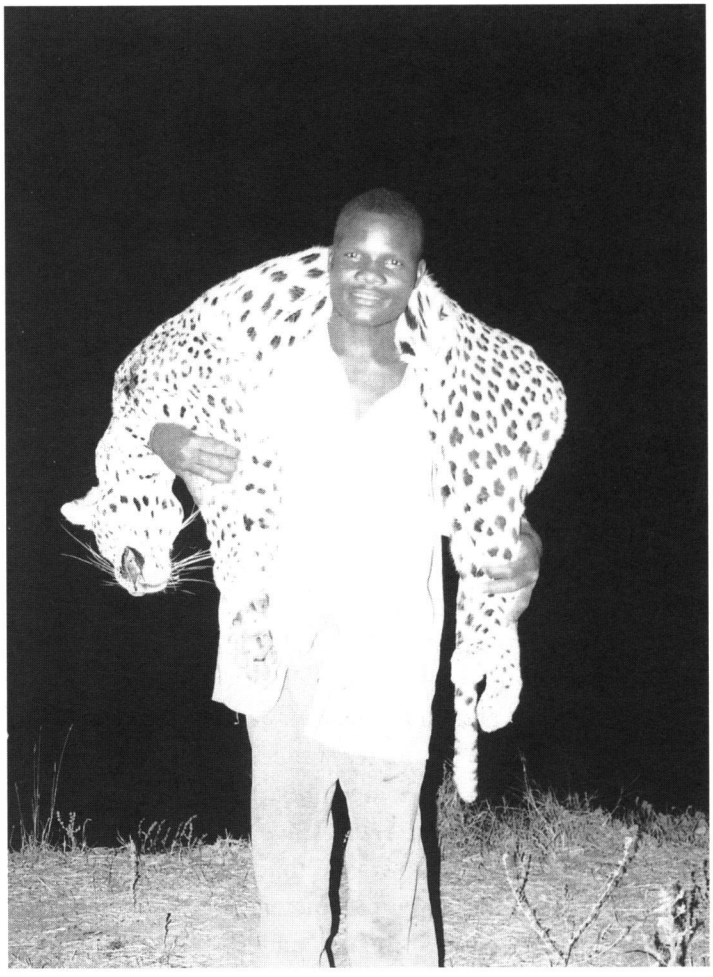
When he completed high school, he asked to join my safari outfit and I initially employed him as my 'mule' (to carry the day pack that we used to have with us at all times while out hunting) and as Special's understudy.

At some stage during Nico's first ever safari in the Zambezi Valley, we tracked a lone old Dugga Boy. On that occasion, the grass was still green and fairly long and this made the tracking conditions difficult. Curious to see if Nico had inherited any of his father's talent in this department, I asked him if he knew how to track, and if so, to take the lead and follow the bull's spoor.

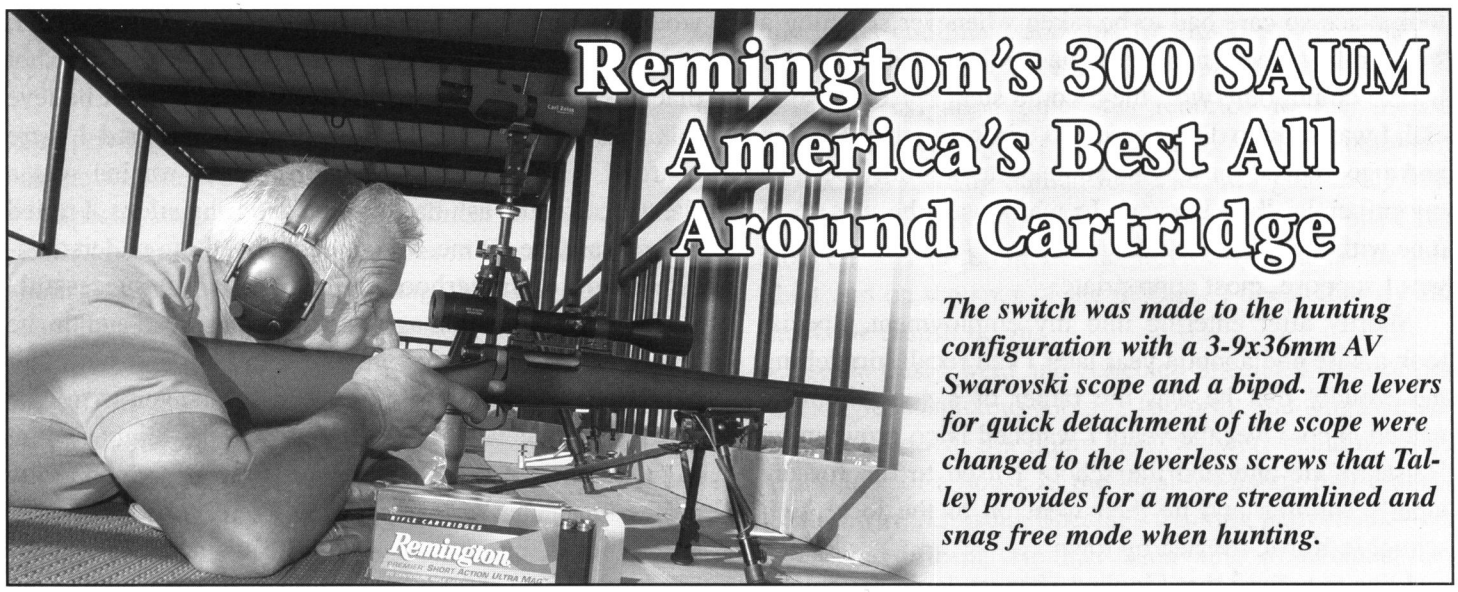
Like a marathon runner reacting to the starting pistol, Nico took off on the bull's spoor, running on it as if the hound of the Baskervilles were after him! Now I know for a fact he had never been asked to track before. Up until that time, he had just been another African kid growing up on a farm and yet he could, without any prior training or experience follow the faintest signs of the bull's passing, in the most difficult of conditions, as if they were the white line down the center of a freeway! He saw things that I did not and I was embarrassed to admit that even as a absolute 'beginner', Nico was a hundred times better at this art form than I'll ever be — and that, I've come to accept, is simply genetics.

While I admired Special's tracking abilities immensely, it was his courage that I really came to respect. Thankfully, the two of us never had to follow-up too many wounded dangerous game animals — I'm a 'careful' PH, one who is absolutely paranoid about correct first shot placement and good shooting performance and I believe this to be the reason. Despite this, Special and I were charged a few times — and all he ever carried was a sheath knife, the ash bag and the shooting sticks. I relied on him, and he on me. We shared a bond, an understanding, almost a brotherhood in fact, and it was successful.

Special's reputation as a tracker soon spread and on the odd occasion he and I were asked to help sort out other hunters 'mistakes'. These times were dangerous to the extreme, yet never once did I detect the slightest hint of fear in him. I admit, there have been occasions in my professional hunting career when I felt butterflies as big as vultures in my stomach — despite me invariably clutching my beloved .505 when I did so. If Special ever felt the same, he never once showed it. You guys on the other side of the puddle have a saying about such people — it is 'cahones grande' and with respect to Special, I believe it to be most applicable!



Nico, Special's son, poses with a big tom leopard that one of my safari clients shot.



Remington's 300 SAUM America's Best All Around Cartridge

The switch was made to the hunting configuration with a 3-9x36mm AV Swarovski scope and a bipod. The levers for quick detachment of the scope were changed to the leverless screws that Talley provides for a more streamlined and snag free mode when hunting.

BY JACOB GOTTFREDSON

The title of this article is going to cause some brows to furrow and some pet cartridge lovers to frown. Nevertheless, I will try to prove that title in this article. In fact, if the military were not so entrenched with the .308 and 300 Win Mag, I would also claim it could be the best medium range sniper round. Your rebuttal is welcomed, but let me make my case first.

Winchester's 300 WSM has garnered the attention of shooters across the land. And well it should. It is new, innovative, and gets the job done with velocities just short of the 300 Winchester Magnum with similar pressures and a smaller, lighter, unbelted cartridge for us to carry. Its claims of greater velocity seem to have put it over the edge in its competition with Remington's 300 SAUM. People are enamored with velocity. The more the better. Since the 300 WSM has been written about to the point of saturation, I will leave it here. Let me say, however, that velocity is not the only parameter to consider in deciding which round is better, or which might better satisfy the title of Best All Around Cartridge. Nor is it always necessarily true that the 300 WSM produces more velocity than the 300 SAUM.

But let me start at the beginning. I became involved with the Remington 300 SAUM through a set of very lucky circumstances. I had made arrangements to visit the Remington/Swarovski petting zoo on the west coast of Florida the day before the 2003 Shot Show. We were given name tags to wear on our shirts as we entered the shooting area. A friend and I spent about 2 hours there shooting some of the Remington shotguns and rifles and looking through a lot of Swarovski glass. A young lady came up to us and said it was time to leave the petting area and proceed about 200 yards to where we would be served barbeque. Life is good. As we left the area, other young ladies asked us to put our name tags in a box. We had been eating for about a half hour when Rob Fancher, public relations for Swarovski, and Linda Powell, public relations at Remington, stood and announced that some lucky person was going to win a Remington Alaskan Wilderness Rifle from their custom shop, a Swarovski scope, ammo, and a mule deer hunt in Montana the next November. The person whose name they drew from the name tags in the box was yours truly. Life is getting better!

The rifle arrived about 2 months later with 150, 165, and 180 Core Lokt and Core Lokt Ultra ammo. But before the rifle could be built in Remington's custom shop, I was told to choose between the 7mm SAUM and the 300 SAUM. I labored over the choice for a couple of weeks. I finally decided on the 300 SAUM for several reasons. I believe the 30 caliber is more versatile, is more suited for taking large game animals, would be better suited for sniper use, bullets have more weight and frontal area, and I thought it would make a better subject for an article.

What Makes an All Around Cartridge?

First, let's look at the attributes of the all around cartridge from my perspective. We will concentrate on hunting in this article and on sniping in another. An all around cartridge is not really an all around cartridge without some boundary qualifiers. I don't think anyone will spend the greater amount of their time hunting

prairie dogs with something like the Remington 300 SAUM, nor do I expect them to use it when hunting polar or grizzly bears, although either could be done. I think most would agree that the all around cartridge fits somewhere in the middle, say coyotes, antelope, deer, elk, black bear, moose, etc.

If antelope to elk and moose are the prey, then the bullet has to have the necessary frontal area and mass to dispatch the heaviest of those animals humanely. If that is true, then a 30 caliber is better suited for all around use than either the 270 or 7mm class. If antelope is our prey, the advantages of the .338 are not required. Thus, the all around cartridge should be one that is configured for the caliber that has lasted through it all, the 30 caliber. It offers sufficient frontal area and weight for the larger species, but is not unwieldy for the smaller.

The second criteria is sufficient, but reasonable, velocity for both considerable lethality as well as effective long range application and reasonable barrel life. There is little need for anything greater. Yes, it is nice to shoot high velocity cartridges that reduce mid range trajectory and increase the shooter's chances of a hit, but that can be carried to extreme and has other disadvantages. People do not often spend considerable time in the field shooting and practicing with heavy bullet, high velocity cartridges. For one, it is expensive, and it hurts. It is not enough to practice often with a .308, for example, and then go hunting with a 30-378, shot only a couple of times to sight in. Time on the rifle that you will hunt with produces the best results. So ... I don't think anyone will argue that the 30 caliber is a bad choice, and I believe that most people will argue that in the final analysis, the 30 caliber is probably a best all around caliber candidate.

While slight, there are advantages to a short action. A repeater with a shorter bolt throw and a smaller loading port with a small cartridge lend themselves to greater mechanical advantage. For one who has competed often with everything from the diminutive 6 PPC to the powerful .338 Lapua Mag, I can attest to the fact that loading, handling, and carrying cartridges the size of the Remington 300 SAUM offers significant advantages. The smaller cartridge is more easily carried, handled, and loaded. Thus it is faster and more convenient.

In sniper competition, there are stages that require extremely fast fire. For example, hitting 10, 12" steel disks at 500 yards in 40 seconds. A short bolt throw and smaller cartridge expedites that event considerably. In the case of hunting, it greatly helps when 2nd or 3rd follow up shots are needed. In long range competition when one is trying to beat the flags, a smaller cartridge is considerably faster to deal with ... and fast counts.

I would like to add at this point that the short action is stiffer and contributes to accuracy as well. However, even though I have read and heard that statement many times, I am not certain it is necessarily true. That depends on a lot of factors. My assumption is that people have either done the necessary structural calculations or they are simply assuming it from a logical standpoint. A short piece of steel rod, supported at 2 points (the bedding screws), would bend less under load than a longer piece of steel rod of the same diameter when the supporting points are farther apart. Shear would remain the same, as would axial force. But that also depends on bedding technique. The greater amount of bedding surface available in a long action might also contribute to more stiffness and greater accuracy than a short action when glued like a benchrest rifle. So until I have the opportunity to do the structural calculations of every conceivable action and bedding configuration, I will let that one alone. If anyone does have the structural engineering calculations, however, I would sure like to see them. How about it Remington ... convince me?

Remington engineers were thinking when they decided on a length that is identical to the .308. The case fits in the magazine wells of the venerable .308 with the same overall length. In sniper matches I use a

Continued on next page

Remington's 300 SAUM America's Best All Around Cartridge *Continued*

Nesika built .308 with a 10 round magazine from HS Precision. I can rebarrel that rifle to the Remington 300 SAUM with only the addition of a second bolt. 7 rounds of the Rem 300 SAUM fit nicely in those magazines. The advantage is that the bullet can be loaded out of the cartridge far enough so that the case is not robbed of powder capacity. Bullets such as the 168 and 175 grain Sierra MatchKing fit the magazine well exactly as does the highly accurate .308. Other bullets such as the 168 grain Nosler Partition, the 165 grain Nosler Ballistic Tip, and Barnes' 168 grain Triple Shock are close to the same length and work just as well. Heavier bullets such as the 190 grain Sierra MatchKing, 185 grain Lapua Scenar, and Nosler's 200 grain Accubond do have to be pushed down into the case a bit farther, but still do not rob significantly from case capacity.

The Remington 300 SAUM is truly a short action cartridge that has not adulterated the term or the short action, leaving the shooter and the industry to work out compromises.

The case easily propels 168 and 175 grain bullets above the 3000 fps mark, a good 400 to 500 fps faster than the .308 Winchester, and that is from the 22 inch barreled Remington Alaskan Wilderness rifle. That gain is significant for both overall long range flight, gains in midrange trajectory, and lethality without becoming both an absurd barrel burner and a brain deadener when fired. The cartridge brings to the table a comfort zone of both effectiveness and small size.

In my opinion, the 30 caliber is the most versatile small arms caliber in the world, offering bullets as small as 110 grains to as large as 240 grains. Hunter benchrest competitors use small bullet weights in the 130 to 140 grain area with incredible success at the short ranges. 1000 yard competitors use bullets from 190 to 240 grains that are both very accurate and possess very high ballistic coefficients.

Because the case of the Remington 300 SAUM will allow bullets to be seated out farther in short actions, and because of its configuration, the cartridge should be accurate in such actions. Case configuration should make it supremely accurate in custom, single shot, benchrest, and F class actions. My experience testing the cartridge bears that out. Just as I would not question the accuracy of the 6PPC after shooting literally thousands of rounds in competition, I do not doubt the accuracy of Remington's 300 SAUM after testing it thoroughly in the rifle that Remington sent me. I expect it to do amazing things in my sniper rifle.

Just because the case is suited for short actions does not mean that it will not work well in single, long, or magnum actions, where the bullet could be loaded out of the neck enough to vary seating depth and pressure against the lands.

One theory of lethality is that the combination of energy and velocity should be above 3000. Another is that remaining energy be above 1000 ft-lbs. The table below compares several popular cartridges using Sierra Bullets.

Note in the table that the 300 SAUM has only slightly less lethality than the 300 WSM, is better than the .308 and 30-06, and is almost as good as the 300 Win Mag. It is also approximately the same as the 7mm Rem Mag and 7 STW but possesses superior mass and frontal area. One must remember that momentum is a better indicator of lethality and knock down power than kinetic energy. One must also keep in mind that the Remington 300 SAUM cartridge is smaller, easier to handle, and fits in short action magazines. With the exception of the .308, none are true short action cartridges that will fit in .308 magazines and allow the bullet to be seated long.

Cartridge	Bullet (Grains)	Velocity fps at muzzle	Energy > 1000 ft-lbs @ yards	Energy + Velocity > 3000 @ yards
300 SAUM	175	2950	825	725
300 WSM	175	3050	875	750
300 Win Mag	175	3150	925	800
.308 Win	175	2650	650	525
30-06	175	2750	725	600
30-378	175	3260	975	850
300 Ultra Mag	175	3230	950	825
7mm Rem Mag	140	3350	775	775
7 STW	140	3400	800	800

One strange anomaly was noted: While the 175 grain, 30 caliber bullet's combined velocity and energy was always about 125 less than energy alone, the 7mm, 140 grain bullet's combined velocity and energy was the same as the energy alone.

The performance of the 300 SAUM is achieved with less powder than any of the other comparable cartridges. Many of the big boomers are overbore, meaning that all the powder is not burned or is burned inefficiently. The short, fat cases allow better burning and ignition because the primer flame reaches farther into the available powder column. The efficient burning of powder allows the short, fat cases to generate nearly the velocity of their bigger cousins, does it over a smoother pressure curve, and with considerably less powder than the big 30 caliber magnums. The new case configurations also get rid of such nuisances as belts that offer no advantages to strength or accuracy and take up unnecessary space in the magazine.

Testing Remington's 300 SAUM in the 22 inch barreled Alaskan Wilderness Rifle

Model Seven Alaskan Wilderness Rifle — 300 SAUM — Swarovski 6-18x50mm scope and Talley mounts. 22 inch barrel, 1:10 twist, 6 1/8th pounds without scope.

To date only IMR 4350 powder and Federal 210 primers have been tested. Remington 300 SAUM cases were neck turned. Primer pockets and flash holes were made uniform, and the cases trimmed. Redding Competition reloading and bushing dies were used throughout. The Remington Core Lokt cartridges were factory loaded.

Humidity 80%
Temperature 90 degrees F
Elevation 60 feet
Pressure 29.95
Conditions otherwise mild
Velocity taken 10 feet from the muzzle
All loads shot from a bench using benchrest front and rear rests
All groups are 5 rounds

I did shoot the 180 and 150 grain Core Lokt that Remington had sent me with about the same results as the

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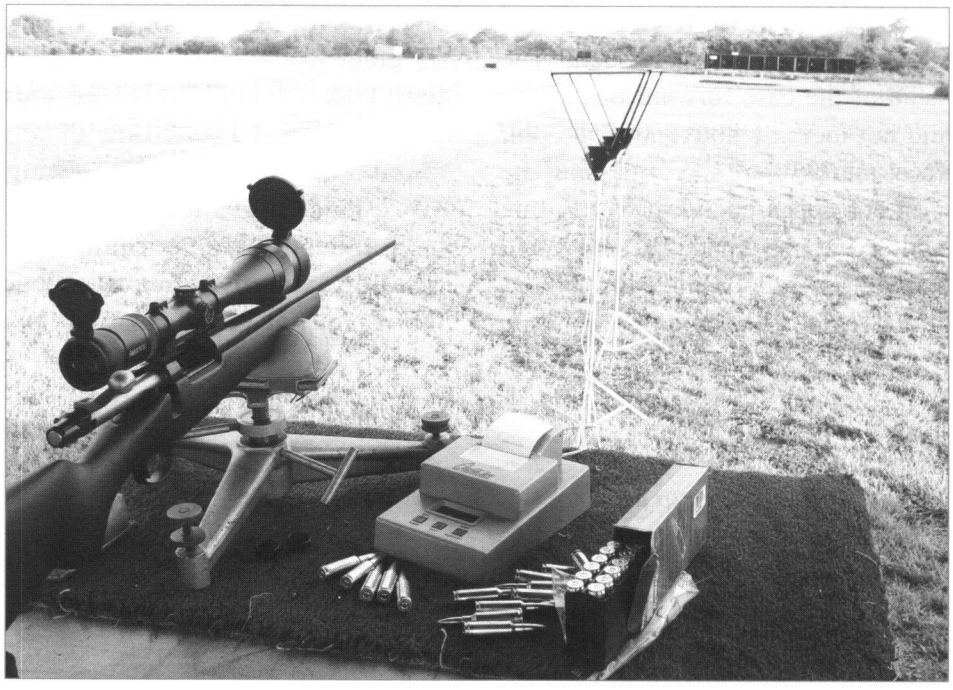


Testing the 300 Short Action Ultra Mag Alaskan Wilderness Rifle from Remington's Custom shop.

The 300 SAUM was set up with Swarovski's 6-18x50mm AV scope and Talley Quick Detachable Mounts for testing accuracy.

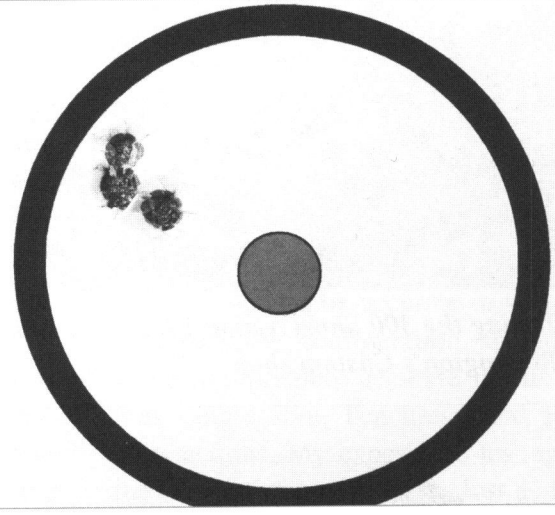
Remington's 300 SAUM America's Best All Around Cartridge *Continued*

165 grain Core Lokt in terms of group size.

Note that I am about 3 or 4 grains above the max load shown in the Nosler reloading manual for this cartridge. However, I reloaded the brass 8 times without incident. The head of the case forward of the rim did not increase above .001, no bolt face marks were present, and the primers appeared normal. Loading and extraction remained easy and normal as well. While most bullets tested remained at or above one inch, both the Ballistic Tip and the Triple Shock shot a little better as did the MatchKings. I repeated the 65 grain load with the Ballistic Tips with the same .5" group results. However, when loaded with more powder, group size increased in every case. The Triple Shock seemed to like the steam and continued to shoot well under an inch with both the 66 and 67 grain loads. **Note with caution that I shot loads above the only powder load I could find in any manual at the time of my testing. Work loads up with extreme care. Even though I had no trouble with cases or extraction does not mean that I am not above SAAMI spec pressures, which was not tested. These loads were safe in my rifle; they may not be so in other rifles.**

I am told that spherical powders seem to work best in the SAUM case versus stick powders like 4350. That makes sense. But I used what powder I had with the data I could find at the time, and Nosler noted 4350 as their most accurate powder tested. I do have several other powders to test, including a new spherical powder call Hunter from Western Powders, as well as heavier bullets. I will let you know if any show significant advantages.

In the larger view we can see that the little 6 1/8 pound rifle with 22" barrel is capable of sending premium hunting bullets down range at over 3100 fps with less than 1 MOA accuracy ... in fact, in the area of .75 MOA and less with certain bullets. As soon as I can have my sniper rifle rebarreled with a 26 inch heavy Hart barrel, the rifle will weigh in the vicinity of 17 pounds. I would expect velocities in the 3200 fps range with significantly reduced groups. For an unbelted case no longer than a .308 Win, that is a significant improvement. My present .308 barrel on the sniper rifle is a 25 inch Hart produc-



This particular group at 100 yards is the Barnes 168 grain Triple Shock caught at 3125 fps on the chronograph. Both the Nosler 165 grain Ballistic Tip and the Nosler 168 grain Triple Shock grouped consistently well.

Bullet	Powder/grains	Average Velocity fps	Velocity Spread fps	Standard Deviation	Group in inches
165 grain Core Lokt		2990	40	19	1.97
175 grain Sierra MatchKing	4350/61	2815	54	22	1.38
175 grain Sierra MatchKing	4350/62	2835	67	26	1.23
175 grain Sierra MatchKing	4350/63	2900	46	38	1.17
175 grain Sierra MatchKing	4350/64	2960	35	15	.90
175 grain Sierra MatchKing	4350/65	3010	25	11	.85
168 grain Sierra MatchKing	4350/64	2975	30	13	1.60
168 grain Sierra MatchKing	4350/65	3025	47	18	2.2
165 grain Nosler Ballistic Tip	4350/65	3010	40	21	.495
165 grain Nosler Partition	4350/65	3010	20	9	2.5
168 grain Barnes Triple Shock	4350/65	3035	37	7	1.39
165 grain Nosler Ballistic Tip	4350/66	3075	25	12	1.07
165 grain Nosler Partition	4350/66	3060	10	5	2.3
168 grain Barnes Tripe Shock	4350/66	3075	17	8	.712
165 grain Nosler Ballistic Tip	4350/67	3130	3	1	2.2
165 grain Nosler Ballistic Tip	4350/67	3130	25	12	1.65
168 grain Barnes Triple Shock	4350/67	3115	22	11	.883
168 grain Barnes Triple Shock	4350/67	3115	14	7	.743

ing about 2650 fps with 175 grain Black Hills Ammo. Moving to the Remington 300 SAUM would pick up approximately 600 fps velocity or nearly a 23 percent increase.

Granted more testing is required. Other powder, bullets, primers might prove even more successful.

I continued to shoot the rifle, moving to longer ranges. Groups were good at 300 and 500 yards. In fact it proved no problem to produce 5" groups on the 12 inch steel at 500 yards. I managed to plot the 165 grain Core Lokt bullet to the most efficient flight for the TDS Tri-Factor Reticle in a 3-9x36mm Swarovski scope without changing power and ended up with the following for the Montana hunt:

This table was produced using 70 degrees at my range, which is 60 feet above sea level, and a pressure of approximately 29.95 with a velocity of 2950 fps, and 9 power on the scope. When I ran the same data for hunting in Montana at 40 degrees with the same velocity but with a different elevation and pressure, the altitude overcame the drop in temperature, meaning that the bullet's flight was approximately the same.

In Montana, Dean Capuano of Swarovski was the first to spot a mule deer at 230 yards that was down hill at about 10 degrees facing and quartering me. Using the Core Lokt bullets, I figured I could easily count on a 5 inch group at that range. The animal was quartering toward me, and I aimed at the neck shoulder junction, figuring that a hold any farther back might end up in the gut. The deer dropped in his tracks and was dead before he hit the ground. All that work and training, and I only shot once on the Montana hunt. Bummer. I caped the animal and found that the Core Lokt bullet had penetrated the neck, completely destroying the spine. It continued on through to the offside shoulder and stopped there. No vitals were hit. The recovered bullet weighed 105 grains, having shed exactly 60 grains of its original weight. Checking the box, I found that the 165 grain Core Lokts Remington had sent me were not the Ultra, which is a bonded bullet with a thickened jacket at the middle of the shank. I would have expected more weight retention with the Ultra. On the other hand, I probably would never have found the bullet either.

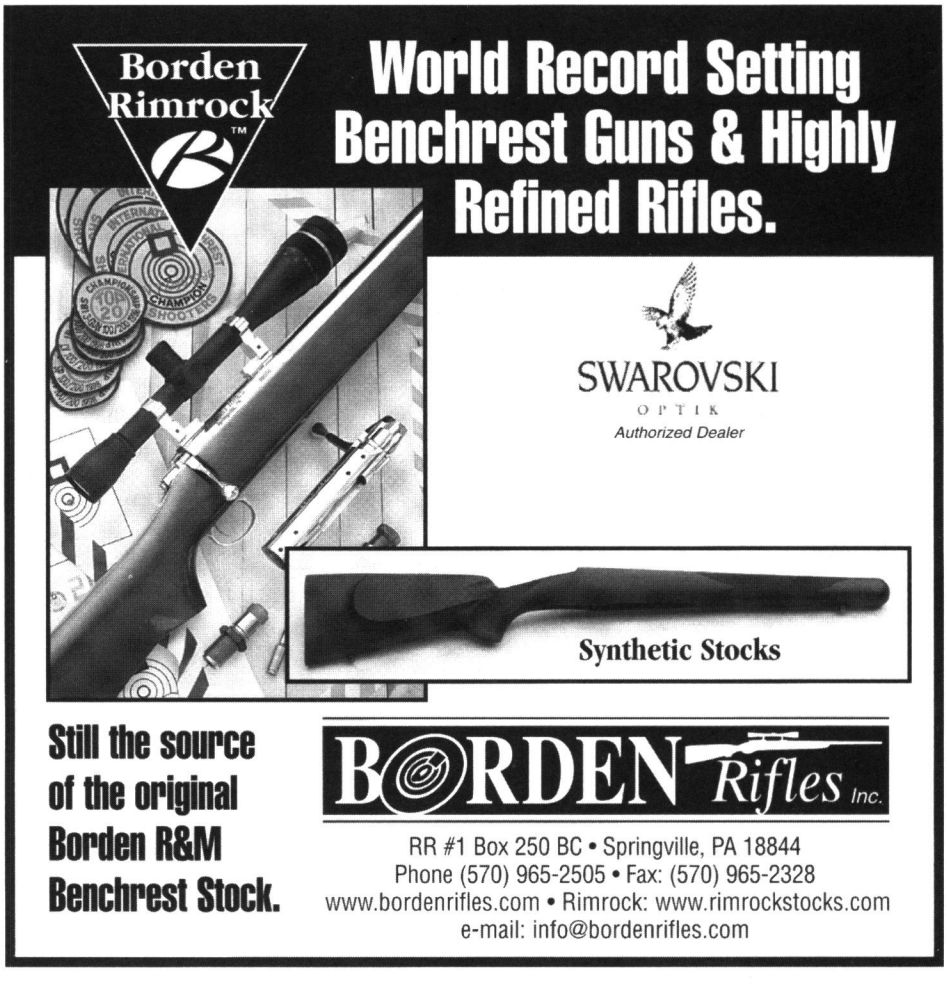
The little rifle worked well and was very easy to carry. At a velocity of 2950 at the muzzle, the bullet should have been traveling approximately 2400 fps with 2100 ft-lb of energy for a combined lethality of 4500, significantly more than was needed.

Comparing the 300 SAUM and the 300 WSM

Both the WSM and SAUM cases are approximately .535" diameter at the top of the case and .550" nearest the head. The Remington 300 SAUM case neck is .013" longer than the

Continued on next page

BAR	ZERO (yd)	MIN (yd)	MAX (yd)	TDS Bar Holdover
Crosshair	262	0	310	0
1	335	284	371	2
2	415	383	442	4.5
3	500	478	520	7.5
4	575	558	590	10.5



Remington's 300 SAUM America's Best All Around Cartridge *Continued*

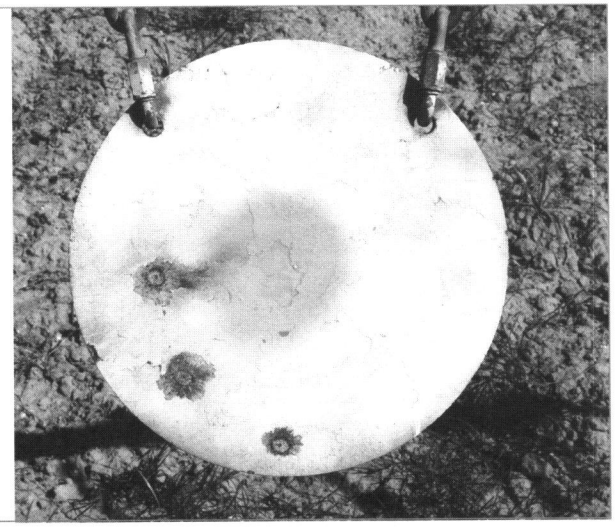
Winchester 300 WSM, but the shoulders are the same angle. The 300 WSM max SAAMI shell length is 2.100" and the 300 Rem SAUM is 2.015" (same as 308 Win) for a delta of .085". To fit in a short action magazine, the OAL of the cartridge cannot be much longer than 2.850".

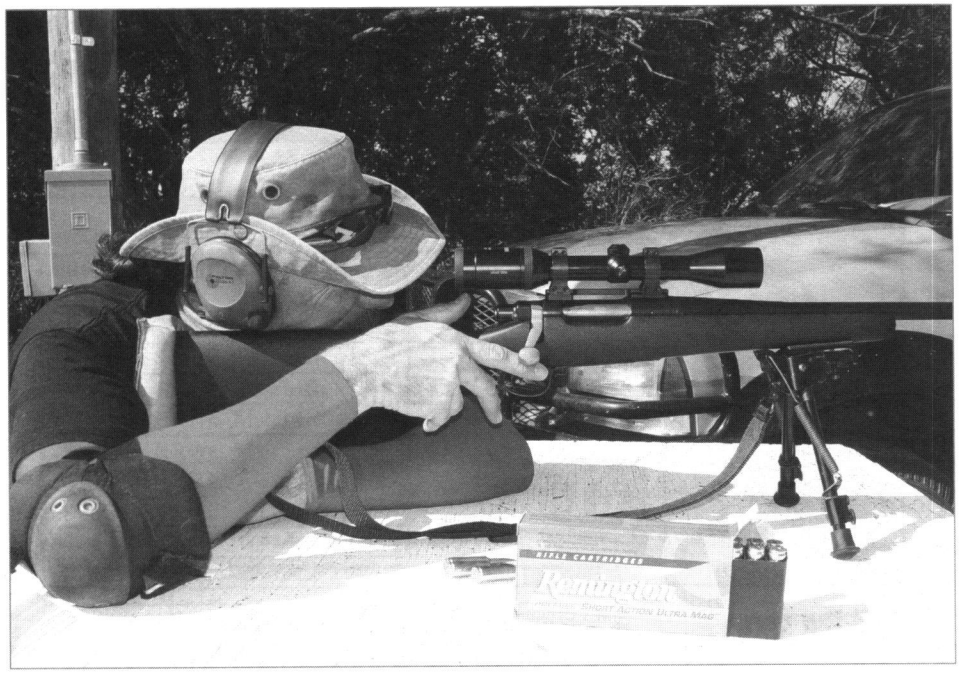
By design, the 300 SAUM case is exactly the same length as the 308 Winchester case. This means that bullets can be loaded to the same overall length as the .308 case for use in a short action magazine as it was intended, or .085" longer than is possible with the 300 WSM case. Thus, approximately .085 x (.535/2) squared (3.14) = .0764 cubic inches more volume is made available in the 300 SAUM and the same amount reduced in the 300 WSM case. While these figures are not exact, and while they are small, they do illustrate the point that powder capacity is robbed by having to push the bullet farther down into the case to make the 300 WSM work in true, short action magazines.

In general, bullets that are farther out of the neck and closer to the lands will shoot more accurately. Plus the fact that 300 SAUM loads are very close to 300 WSM loads in velocity with the bullet out farther in the case.

All of this is out the window if one uses a single shot action or a modified short or long action. But remember that my whole concept evolves around the use of true, short actions that allow for a light, easy to carry rifle and efficient cartridge with enough speed and energy to take any North American game. A rifle that is not overbore and won't take your head off every time you pull the trigger.

I shot several different loads at the longer ranges. All shot quite well. The Remington 165 grain Core Lokt with which I hunted in Montana shot groups like this consistently at 500 yards. The steel plate is 12" in diameter, the group about 5".





John Cranford, a consistent sniper match winner and Dallas Police Officer, tries his hand with the 300 SAUM. Note the leather sand bag between John's shoulder and the rifle. The little rifle has quite a sting when shooting from the bench. With scope, mounts, sling, and ammo added, it weighs just 7 1/4 pounds.

Bottom Line

After more than 50 years of hunting, competition, and testing rifles, I have come to believe that there is a point of diminishing returns in our fevered efforts to produce larger and faster cartridges. While they are fun and exciting and new and we should never stop our innovative spirits, many of them offer disadvantages as well as results that are unnecessary. In my humble opinion, time on the rifle is more important than great amounts of velocity and bone crushing energy. The Remington 300 SAUM offers us the perfect compromise for the all around cartridge: Short and light in weight, reduced powder capacity, plenty of bullet weight and frontal area, factory available loadings, fits in true short actions, velocities that will get the job done without dislocating ones shoulder, and easy enough to shoot

so that hunters, competitors, and tactical rifleman can spend the amount of time on the rifle necessary to make him or her a proficient shooter.

Mentioned in this article:

Remington Arms Company, Inc.
870 Remington Drive
PO Box 700
Madison, NC 27025-0700
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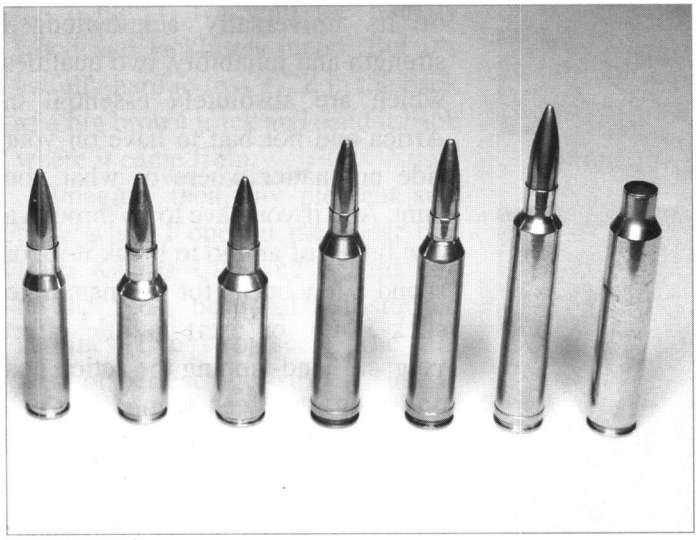
The mule deer taken in Montana with Remington's 300 SAUM Alaskan Wilderness rifle. On the right is Bruce Smetana, Crossheart Outfitter's Guide.



From the left: .308 Winchester, Remington 300 SAUM, Winchester 300 WSM, 7mm Remington magnum, 300 Winchester Mag, 308 Baer (necked down 8mm Remington case), and Remington 300 Ultra Mag.

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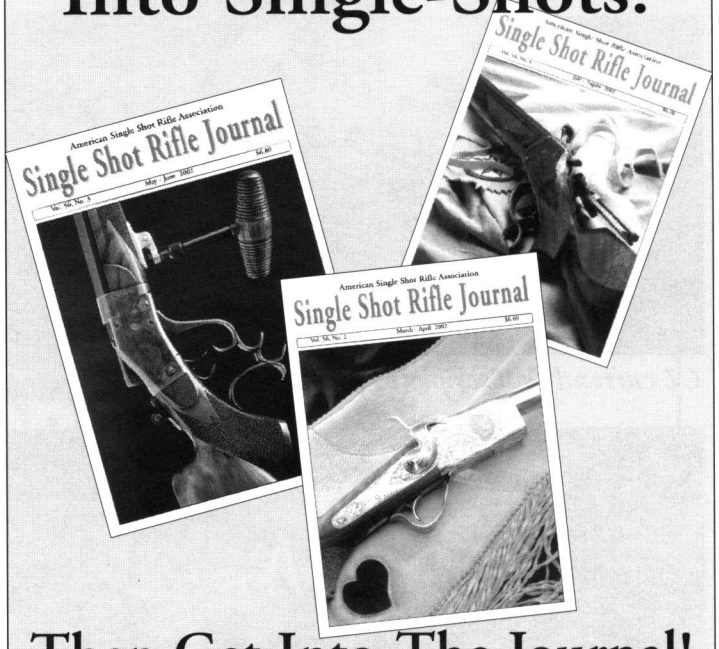
Into Single-Shots?



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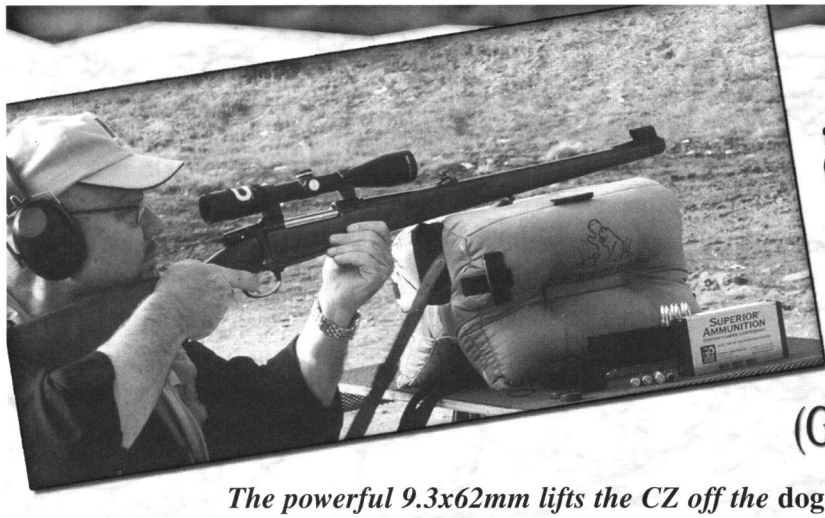


Another CZ Keeper

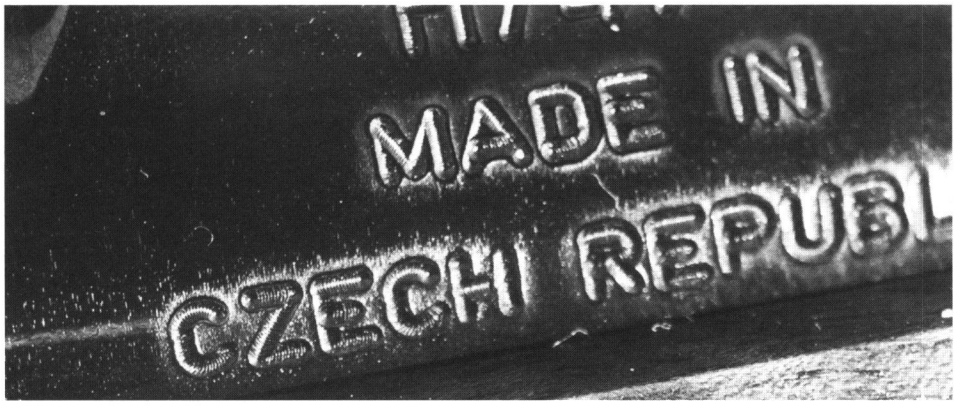
(Getting Ready for *Syncerus caffer*, Part VI)

The powerful 9.3x62mm lifts the CZ off the* dog-gone-good *rifle rest with a little friendly recoil.

BY ROBERT H. BOATMAN
Photography by
Morgan W. Boatman

As political decisions go, the Czech government's arrangement to buy the complete production line and tooling from the Mauser works at Oberndorf after World War I and move it to the arsenal at Brno was a stroke of brilliance. I admit to being an ardent fan of Czech-made CZ Mausers even back in the days when they were basically chiseled out of rock by Communist drudges. I was happy that somebody was keeping the authentic Mauser flame burning even when Russian bureaucrats insisted that graduates of the Prague Spring stamp the receivers made by Česká Zbrojovka in Uherský Brod with the name of somebody else's hometown and make the safeties operate the wrong way round. Unlike any other example I can think of at the moment, this was a case where my faith paid off.

CZ currently subscribes to the billboard school of product identification.



The Czech Republic is now a free country, and the great eastern European gunmaking traditions are coming back in a hurry.

CZ builds, has always built, the most reasonably priced true Mauser action you can get. Price aside, it's one of the most respected actions, if not *the* most respected action, among hunters of dangerous game because of its universally acknowledged strength and reliability, two qualities which are absolutely essential in Africa and not bad to have on your side no matter where or what you hunt. And if you have to go through a few boxes of ammo to break it in, or spend a few bucks for a gunsmith to slick it up, or exert a little effort yourself hand-lapping the action and polishing the feed ramp, that's a small price to pay for what you end up with.

The fact is, now that all those gloomy Russian Communists have worn out their welcome everyplace except in our own Democrat Party, the craftsmen of the free Czech

Republic are being allowed to put some of the finishing touches on their guns they've always deserved. The famously rugged double-square-bridge Brno ZKK 602 action has had some of its equally famous rough edges refined, its safety changed to the proper forward-fire operation and is now known as the CZ 550. So for the price (or considerably less) of a paper-punching push-feed action with delusions of grandeur or some plastic-stocked piece of all-around ugliness or a fragile not-quite-a-Mauser wannabe, you can have the real thing. Even better than they used to make them at Oberndorf.

I try not to let too many months pass between hands-on inspections of the latest out of the CZ factory. I've kept, as in bought and paid for, some of these rifles in the past, using them as the basis for semi-customs, usually replacing the wood, refinishing the metalwork, and always giving them over to a gunsmith for a spit-and-polish job on the internals. The barreled action from a CZ 550 Safari Magnum in 375 Holland & Holland Magnum is undergoing an extensive transformation of this type at this very moment. I loved the rifle but couldn't live with the homely wood and lackluster metal. But it's awfully hard to toss a CZ in the back of a big brown truck and send it back where it came from.

Imagine, then, my pleasant surprise when I opened the latest box from Kansas City and beheld one of the most beautiful full-stocked carbines I've ever seen. The full dose of perfect tiger-striped Turkish walnut was striking to say the least, the action and barrel were polished up and blued to perfection, and little sources of past irritation like a silly hole drilled in the bolt handle had been corrected. I was anxious to get this CZ 550 FS to the range in a hurry and went immediately to my stock of 9.3x62mm Mauser ammo.

The CZ 550 Medium magnum action is also chambered in 7mm Remington Magnum and 300 Winchester Magnum, both good varmint calibers in my opinion and not in the least appropriate for dangerous game. The 9.3 Mauser is the most powerful round CZ or anybody else I know of offers in a full-stocked European-style carbine, which is what I wanted. The so-called "hog-back" stock with its Bavarian cheekpiece, proper drop at comb and heel, and Mannlicher-style fore-end wrapping around its short 20½-inch barrel is a joy to handle in the field. No quicker, better balanced, more comfortable-to-shoot rifle configuration has ever been invented. Nevertheless, for those unquestioning devotees of Jack O'Connor, CZ also offers essentially the same rifle with a straight "American" stock, which is also more appropriate for the varmint and benchrest shooter rather than the big-game hunter.

For sheer knock-down power, the 9.3x62mm Mauser, with its .366"

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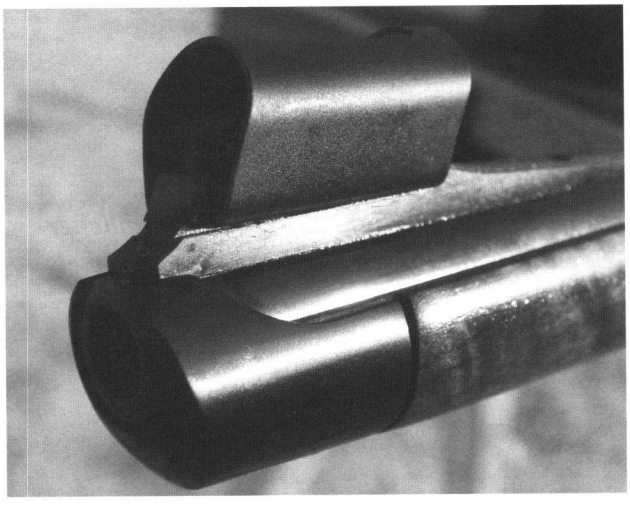

Elegant lines and nice metalworking is characteristic of the CZ 550.

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Another CZ Keeper

Continued

diameter bullet, lies somewhere between the 35 Whelen (.358" diameter bullet) and the 375 Holland & Holland Magnum (.375" diameter bullet). In terms of kinetic energy, it is virtually identical to the rimmed version of the 375 H&H which John "Pondoro" Taylor ranked among his all-time favorites, the 9.3x74R which is perennially popular in side-by-side and over-under double rifles and drillings, and the modern 376 Steyr of Lion Scout fame. The African pedigrees of all these cartridges are impeccable.

Developed in Germany in 1905 by Berlin gunmaker Otto Bock specifically for German colonists in then-Tanganyika, the 9.3x62 has been employed for its full 99 years with shining success against everything from elephant on down, including predatory humans. It was the most extensively used all-around caliber in Africa when John Taylor was at the height of his shooting and writing career in the 30s and 40s and he had only good things to say about it. Only after World War II was the German 9.3x62 finally eclipsed by the British 375 Holland & Holland, with which it is still a fine and respected competitor. In fact, many professionals still prefer the 9.3x62 over the 375 H&H because its slightly lower velocity can deliver greater penetration with lighter recoil to boot.

Tiger-striped Turkish walnut on the CZ is a light to behold. Mannlicher-style European stock with Bavarian cheekpiece make the rifle extremely comfortable to shoot with and without a scope.

The little CZ comes up quickly and handily from the muzzle-down European/ African carry position.

Currently, in some African countries, the 9.3x62 does not technically qualify as minimum legal caliber for thick-skinned dangerous game — elephant and buffalo. But, since in actual practice this decision is usually left to the wisdom and discretion of the Professional Hunter, and given the caliber's long and glorious history of successfully taking the largest of the dangerous game animals for which the Dark Continent is famous, your PH will often sanction your use of the 9.3 for anything you want to use it for, including elephant and buffalo. It is officially approved for these species in Zimbabwe and various provinces of South Africa. It is perfectly legal everywhere for lion and leopard and has long been one of the favored cartridges for the big cats. Professional Hunter Kevin "Doctari" Robertson reminds me that correct placement of the first shot is the most important factor in hunting the big dangerous stuff and says one reason the 9.3 works so well is because it is so "shootable."

Stan Skinner, editor of the 10th edition of *Cartridges of the World*, notes, "... when many African countries were in the process of adopting restrictive laws, specifying minimum chamberings for dangerous game hunting, most ruled for a minimum bore size of 40-caliber. Almost universally, the 9.3x62mm

Mauser was exempted from the banned classification."

Al Miller, writing in *Rifle* magazine, referred to the 9.3x62 as "indomitable." That's not a bad way to describe a cartridge that has been going strong for a century and is currently in the midst of its umpteenth comeback. Yes, all over the world, including the United States this time, the 9.3 is becoming more popular every day. Again. Its wide-ranging practicality (the 9.3x62 would get my vote for the world's best general-purpose cartridge, way ahead of the 30-06), the widespread availability these days of premium 9.3x62 reloading components as well as excellent custom and factory loads, and the cartridge's remarkably warm and friendly nature have finally made a belated impression on some people's thick heads.

Versatile as can be, the 9.3 is customarily loaded with bullets ranging from 232 to 300 grains, though that range is sometimes exceeded on both ends, with the 286-grain typical of the caliber. The best performing bullets are available in .366 caliber as well — including the Barnes X, Nosler Partition and Swift A-Frame. Robertson says, "[The Swift 300-grain A-Frame] is the bullet I'd go for if I were to use a 9.3 x 62 for buff again. I did use some 300-grainers by Ken Stewart — they were flat-nosed core-bonded 'Hi-Performers' and they worked a treat. I think the better Sectional Density of the 300-grainer (SD = .320) makes the difference and better performers at around 2300 fps. Also, the Barnes-X is a goodie. I used their 286-grainers for just about everything and recovered very few — they penetrate like hell and usually exited even on game like wildebeest! An RSA PH was recently telling me he

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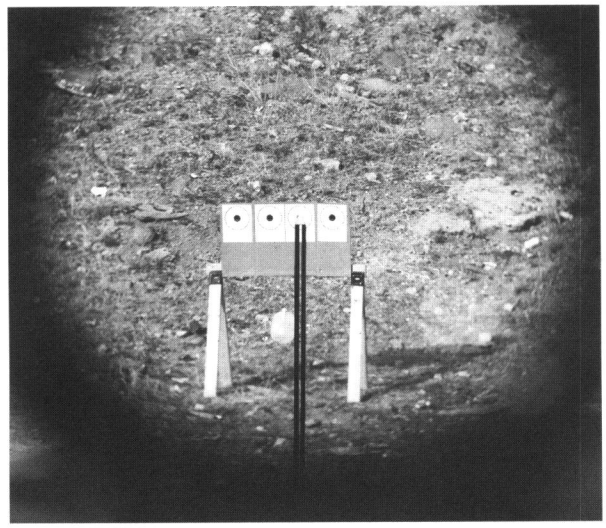
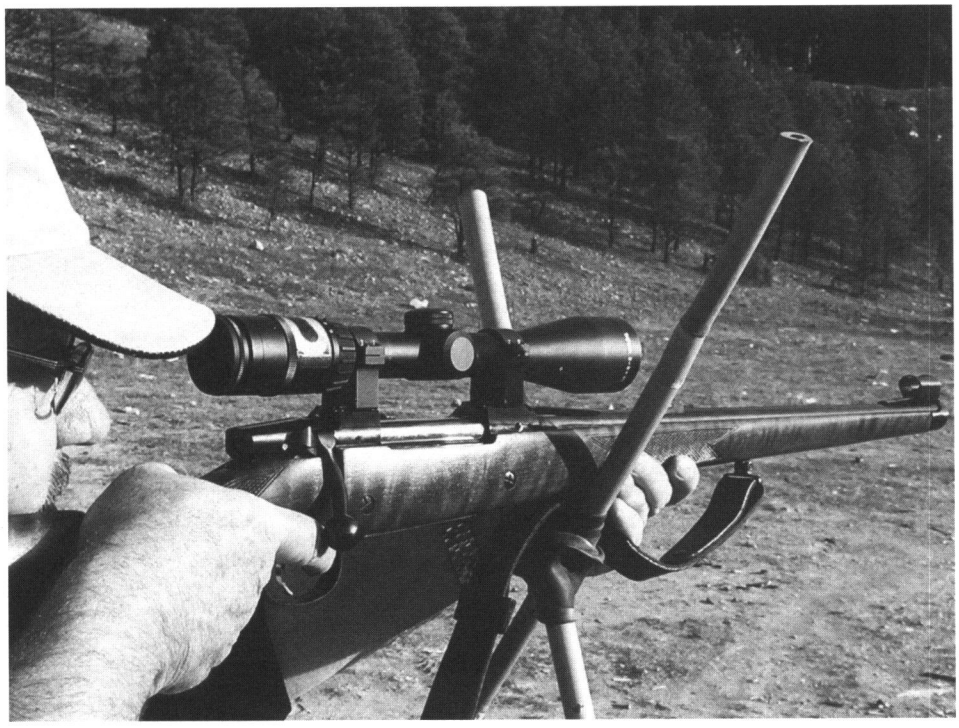
The perfectly balanced rifle (balance point is the magazine floorplate) locks into the offhand position smoothly, gets into action fast.



Even in bright daylight, the aiming point of the Trijicon AccuPoint scope is lit up by fiber-optics. In low light the luminescent glow of tritium takes over the job.

The fiber-optic light collector on the Trijicon is manually adjustable to illuminate the aiming point (in your choice of red or amber) as much or as little as you want.



Traditional African sticks steady the sights for longer range shots. CZ's single-set trigger drops the hammer when the thought enters your mind.

Another CZ Keeper

Continued

uses the 250-grain X-bullet for all the other game and swears by it."

Superior Ammunition, Safari Arms, Quality Cartridges, Norma and Sako all load 9.3x62. You certainly won't find it in every sporting goods store (and Sako ammo is not currently distributed in the US), but it is readily available via the Internet. In this shooting session, I used Superior Ammunition loads with 286-grain Nosler Partitions at about 2350 fps. These were superbly accurate, and can be expected to deliver deep penetration on thick-skinned game and enough killing power for any animal on earth given a properly placed shot.

Widely popular in both Africa and Europe, the 9.3x62 is hardly known by the general shooting public in the United States, which is the American hunter's loss. It is an ideal caliber for the largest of North American game, lethal on the great bears, moose and elk, and entirely appropriate for even smaller deer-size animals unless you're treating them like varmints and shooting them beyond 300 yards, which is no fun anyway.

A uniquely European sport is nocturnal wild boar hunting, for which the 9.3 equipped with a big light-gathering scope is the preferred weapon. The dual-illuminated Trijicon AccuPoint 3-9x40, with its aiming point illuminated by fiber-optics or tritium depending on available light, is an ideal setup for this game, which is certainly as dangerous as anything the European continent can offer. It would not be possible to improve on exactly the same rig for shooting leopard over bait without the aid of artificial light.

I had first thought to mount the smaller Trijicon 1.25-4x24 on the gun, but the eye-relief on the larger Trijicon

was a better match for the CZ integral dovetail mounts. After shooting it for a while, I've decided that the more powerful scope is fine and I will probably make it a permanent accessory on the CZ. Total weight of the rifle with scope mounted and sling attached is 9 pounds even. This is the ideal weight for a 9.3x62 and, when combined with the CZ's excellent stock design, makes carrying painless and recoil a pleasure.

It's a rare occurrence for me to hold a brand new factory rifle in my hands without my first thought being to rush it off to a gunsmith to have it fixed. Holding the Mannlicher-style CZ 550, feeling the slender grace of its wrist and fore-end, its snug fit in my shoulder, playing with the CZ features I so like, especially the single-set trigger, my first and only thought was to start putting rounds through it. The only changes I will make is the usual slicking up of the action, having the disconcerting middle position of the three-position safety reduced to an afterthought or replacing it entirely with CZ's far superior two-position safety, and separating the barreled action from its stock for a few minutes to get to the fully adjustable trigger where the curse put upon it by evil lawyer-witchdoctors can be removed.

After such minor fixes, I will have spent a lot less money for one hell of a lot more rifle than the customary off-the-shelf shooting stick designed and manufactured by people who don't know the difference between a Cape buffalo and a New Jersey milk cow.

I may or may not pit this little 9.3 against *Syncerus caffer,* but I can promise you I'll be putting a lot more rounds through it than my buffalo-hungry 416 Rigby. This CZ is a keeper because you can whisk it away for the weekend and count on running out of ammo before the fun stops.

SOURCES

CZ-USA
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www.cz-usa.com

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Robert H. Boatman is the author of *Living With Glocks* (Paladin Press 2002) and *Living With The Big Fifty* (Paladin Press 2004). He can be contacted at interboat@aol.com.

The Logun Mk II Professional

The Logun Mk II Professional is just plain gorgeous.

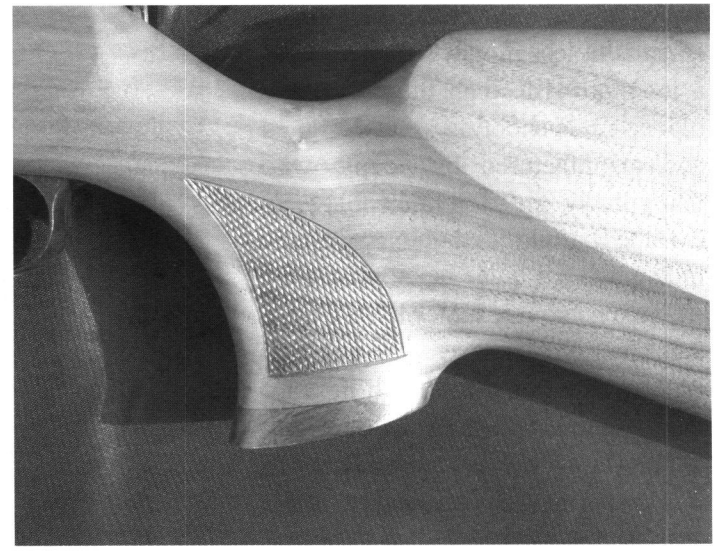
BY JOCK ELLIOTT

"Every component of the Logun Mk II is finished and assembled by hand. These components are then matched and calibrated along with their mating parts to form an air rifle of unparalleled quality. Having assembled a precision instrument, it must then be calibrated and tested. This process is one that many other manufacturers pay little regard to but Logun spends time tuning, calibrating and testing each rifle. Once it meets the exacting standards demanded of a Logun product it will be forwarded for the final battery of quality control evaluations. Only when it has passed every stringent quality test will Logun allow it to leave the factory, thereby ensuring the rifle you have purchased is worthy of the Logun name."

That's a direct quote from page 4 of the manual that came with Logun Mk II serial number 26523. It's one thing for manufacturers to make statements like that, but it's quite another for them to deliver on those claims . . . especially in a way that makes a difference when the trigger is pulled. For me, anyway, it's not good enough to build an air rifle that is beautiful. Good looks are great, but I'm a bit of an accuracy nut and my chief concern is for a gun that shoots well and — even better — makes it easy for me to get the best out of it.

Having said all that, it's obvious from the get-go that someone is taking a lot of care to make sure that the Logun Mk II stands apart from the crowd. When the Mk II arrives, and you open the box, you find that it has traveled in its own soft-sided carrying case. To merely call this a soft-sided case is to do it a disservice. This is the best soft-sided case I've seen. It's big, rectangular, and made of black ballistic nylon. There appears to be about

The Mk II comes with an excellent carrying case.



Attention to detail is everywhere. Here's the checkered pistol grip and wooden end cap.

an inch of foam padding surrounding the gun on all sides. There are two zippers running around three sides so that, when completely unzipped, the case can be opened and laid flat. To aid in toting it around, there are carrying handles and a shoulder strap. This case should be more than adequate for protecting the Mk II from the bumps and knocks that happen when transporting an air rifle. It offers far more protection than discount-mart soft gun cases and is easier to handle than a hardsided case.

Once you get the case open, though, the real fun begins because the Logun Mk II is, well, just plain gorgeous. It stretches 40.5 inches overall and weighs just 7.8 pounds without a scope. At the back of the American walnut stock, which was designed by stock guru Gary Cane, is a thick rubber recoil pad. The cheekpiece has just enough rise to position the eye correctly behind the scope. The checkered pistol grip flares toward the bottom and is finished with a handsome wooden end cap.

You'll find a deep groove next to the pistol grip and at the top of the stock just to the rear of the receiver. These serve to position the thumb perfectly behind the rotary safety at the back of the receiver and help the shooter not to torque or pull the Mk II out of line when the trigger is pulled. Just above the safety is the massive polished stainless steel bolt on the back of what is called the "Supa Glide™" action.

On the right side of the receiver the words "Logun Mk II" and the serial number of the individual rifle are emblazoned in bright red. On top of the receiver is a dovetail for mounting a scope. On the left side of the receiver is the in-line magazine and port for loading the Mk II. Nowhere on the receiver of the Mk II is there a visible breech.

At the front end of the receiver stretches the 21.25 inch Lothar Walther barrel. This barrel is hand-lapped and is built with an exclusive Logun choke. At the end of the barrel is a screw-off fitting that allows a silencer to be attached in jurisdictions where they are legal. Underneath the barrel is a T606 aluminum air cylinder. At the forward end of the air cylinder is a knurled ring — the filler valve dust cover — that can be rotated so that dirt and debris can't get into the charging port.

Beneath the air cylinder is the checkered fore-end of the stock which houses an air gauge, and as you move back toward the receiver,

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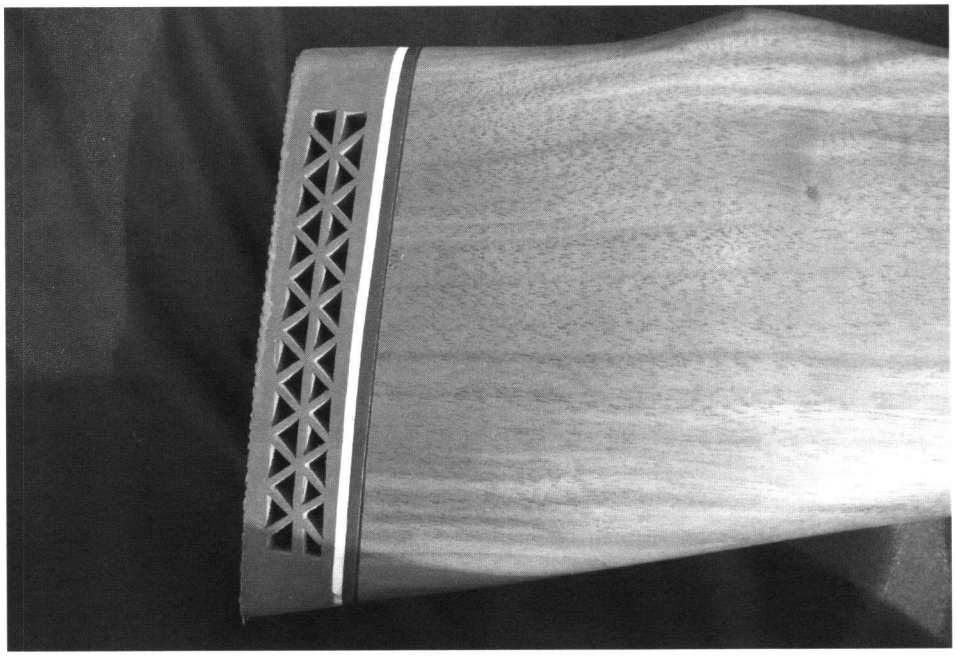

At the end of the buttstock is a thick rubber recoil pad.

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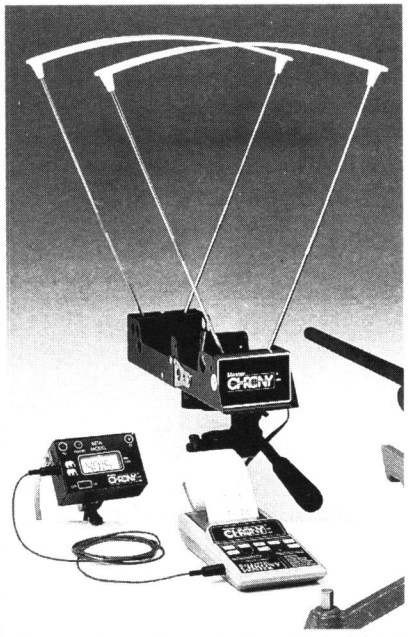

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The Logun Mk Professional

Continued

underneath you'll find the black metal trigger guard and the two-stage fully adjustable trigger. Adjusting the trigger requires removing the action from the stock, but that requires the removal of only one bolt.

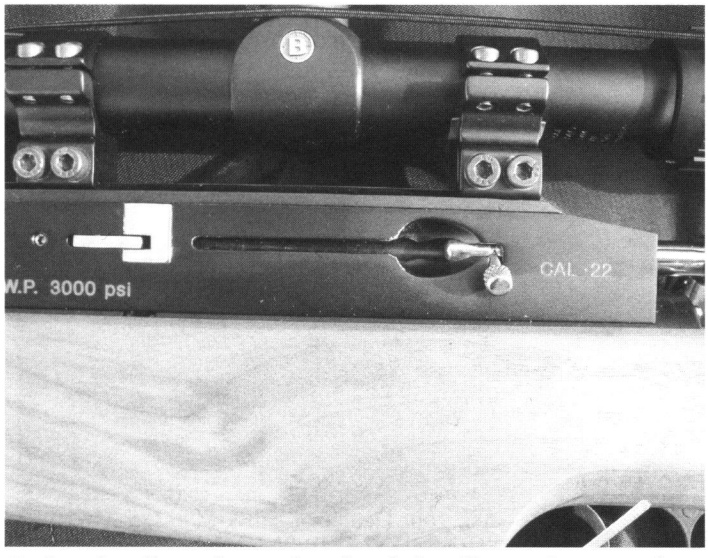
Charging the Mk II is straightforward. Attach the filler probe to your high pressure pump or SCUBA tank. Rotate the filler valve dust cover to align the cover hole with the fill hole of the valve body. Push the filler probe into the hole up to the shoulder, then gradually charge the cylinder from your pump or tank up to 3,000 psi. When the charging is complete, bleed the excess air from the hose, pull out the filler probe, and rotate the dust cover back over the hole.

The Mk II's massive, super-slick bolt is polished stainless steel.

Loading the Mk II is different from many airguns but quite easy. To start, pull back the spring-loaded pellet probe and lock it fully back it its retaining notch. Next, load pellets, nose first, into the magazine. When the magazine is full, or you have loaded all the pellets you want to use, release the pellet probe and gently slide forward until it contacts the tail of the last pellet. The manual warns specifically against letting the pellet probe snap forward, driven by the spring; damage to the pellets or probe may result.

And that brings us to another key point about the care that Logun takes with each and every Mk II. Each gun comes with a clearly written, heavily illustrated 24-page manual specifically written for the Mk II. The serial number, fill pressure, and caliber of your specific gun are written on the first page of the manual. It's obvious that someone has taken a great deal of time to get this manual right and to take the photographs necessary to emphasize and clarify key points.

The general state of gun operating manuals in airgunning is a sore point with me. It's the height of arrogance for a company to sell an airgun that costs several hundreds of dollars with a "generic" manual. It's shoddy treatment of the customer. In addition, if airgun companies would provide proper manuals specific to the guns in question, they would undoubtedly enjoy a huge drop in customer service calls and warranty claims that could have been avoided. My hat is off to Logun for a job well done.



Before loading, the spring-loaded pellet probe must be pulled toward the rear of the rifle and locked in its retaining notch.

Every Mk II is clearly marked with its serial number and comes with a test target and chronograph report for that specific rifle.

Also included with each individual Logun Mk II is a target test card, which lists model, caliber, serial number, fill pressure, pellets, number of shots, date, and the initials of the quality control person who shot the test card. The target card for my test gun showed that five shots went through a single hole, but it didn't specify the distance at which it was shot.

Logun Mk II 26523, which is a .22 caliber FAC (high power) model, also came with a chronograph chart. It showed 32 shots, ranging from a high of 1001 fps to a low of 944 fps, and averaging 981.72. Average energy was 30.62 ft. lb., with the maximum of 31.82 and the low of 28.30. Again, this chart was labeled with the serial number of the gun, the time and date of the test, and the name of the person who conducted it. If nothing else, these Logun folks are thorough.

Crosman Corporation is an importer for Logun in the United States (and Logun is the distributor of Crosman products in the UK.). When the Mk II arrived from Crosman, I read the test target and saw that Accupell pellets were used in the test. So I called Crosman and asked for some Accupells. Sonia Stetler, product manager at Crosman, told me that Benjamin Sheridan round nose pellets were the same thing, and a day later some arrived. This is not a trivial point, because the Mk II manual says, "Please use Logun or Accupell Pellets. If your choice of pellet is different, then a new slip gauge is required — contact your Logun dealer for further information."

In a recent communiqué as this story was been filed, Logun told me that all new Mk IIs will be supplied with three slip gauges: Accupell/ Benjamin Sheridan, Bisley Magnum/ Kodiak, and JSB pellets. In addition, all new Mk IIs will have a modified "switch plate" that will allow them to handle flat nose and pointed pellets as well as round nose pellets. Finally, a revised manual will be supplied with all new guns.

Once the Benjamin Sheridan pellets were in hand, I mounted a Bushnell 8-32 x 40 Elite scope on the dovetails, charged up the Mk II and headed for the range.

Shooting the Mk II is a pleasure. The stock is well designed and makes it easy to get comfortably into position. While I am inherently distrustful of cute trade names, the so-called Supa Glide action really lives up to its name. It's smooth ... really smooth ... smoother than a politician making campaign promises. Rotate the bolt handle up, pull the bolt back full, push it forward, rotate the handle down — that's all there is to it. It's almost effortless.

I settle myself behind the scope, rotate the safety off with my thumb, pull the first stage out of the trigger, and squeeze gently. The trigger breaks cleanly. BANG! The pellet launches downrange with a report that sound like a .22 rimfire. The pellet slams into the target. Flick the bolt, another pellet loads, and you're ready to go again.

I bang off a few shots at 50 yards then wander down to inspect the results. I discover to my glee that I have put six shots into a group that measures just 7/8 inch from edge to edge. Bear in mind that I had made no effort to wash, weigh or size the pellets and that I was shooting off an old ammo box lightly padded with a coat. I suspect that

Continued on next page

The Mk II features an in-line magazine.

Another view of the bolt, with the rotary safety clearly visible underneath.

The Logun Mk Professional

Continued

someone who was fussy about pellet preparation and who used proper front and rear rests could do substantially better. Nevertheless, you don't have to be Einstein to figure out this is one incredibly accurate air rifle.

Are there any rough edges or concerns Logun Mk II Professional? Well, sort of. Because of the loudness of the muzzle blast, this is not an air rifle that is suitable for shooting in suburban neighborhoods, unless you've got a wild urge to find out who's in charge of local law enforcement. In addition, in order to clean the barrel, you must first *remove* it. It's a two-minute process, involving the removal of two Allen bolts. The folks at Logun tell me the procedure will be thoroughly covered in the new manual.

Shooters are specifically warned about exploring the innards of their Mk II. The manual says, "The Logun technicians have installed several 'tell-tale' devices within the rifle, all of which are designed to immediately reveal evidence of tampering. Basically, if you break the 'no tampering' clause of your guarantee, then the warranty on your Logun will become invalid." The manual further states, "Logun rifles are designed to run virtually maintenance-free between their 1 year factory service intervals." Logun says this interval has now been extended to *two* years. I certainly hope Crosman or Crosman's dealers are fully prepared to provide that service.

The Logun Mk II Professional carries a hefty price tag: a suggested retail price of $1399, although the "street" price will be lower. Still, that's a lot of money out of anybody's wallet. It is, however, an incredible air rifle for hunting in the countryside, long-range air varminting or testing your skills at the shooting range. When you look at what you get — superb build quality, flat-shooting 981 fps average velocity, 30 ft. lb. energy, 30 shots per fill, and outstanding accuracy — it seems clearly worth it.

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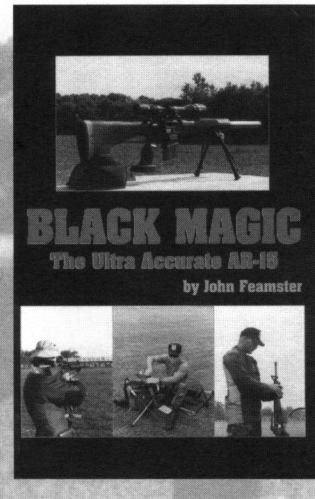

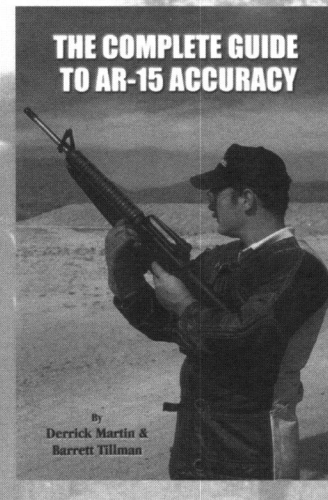

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Kase Reeder:

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The Story of the 1911, Part V

Two custom Kase Reeder 45s based on Colt Series 70 and 80. Finished in satin black Chromex with contrasting stainless steel for those who insist that their 1911s are reliable, accurate and good-looking.

BY ROBERT H. BOATMAN

All my friends have lone-gunman-type personalities. Friendship, after all, requires something fundamental in common. If a guy has no serious interest in guns and shooting, what could you possibly have to be friendly about? I don't have a single friend who counts himself as a football or basketball fan. All that tiresome cheerleading and tedious teamwork. Interspecies friendships based on common interests are possible. Man and gundog. Man and racehorse. Maybe even man and trained monkey. Most definitely man and his big-game adversary. But relationships with sub-human beasts can only go so far. For instance, I don't think friendship between man and Democrat is a possibility.

Besides guns, my friends have a wide variety of secondary interests, all of which are defined by great dollops of solitude and individual style, and flourish in environments of man-against-man, man-against-nature, man-against-himself, certainly not man-as-anonymous-socialist-unit.

Some of my lone-gunman friends are fans of certain spectator sports, such as boxing (the one-on-one) or tennis (the singles game, not doubles). More are participants, whether mountain-climbing, chess, sky-diving, esoteric martial arts, exploring a hidden bat cave or sitting and smoking a good Cuban cigar. A few are cowboys and pool sharks. Those with a taste for speed, at least relative speed, and an appreciation for the beauty of line are passionate about airplanes, automobiles and, most especially it seems, boats of both the wind-driven and engine-propelled variety.

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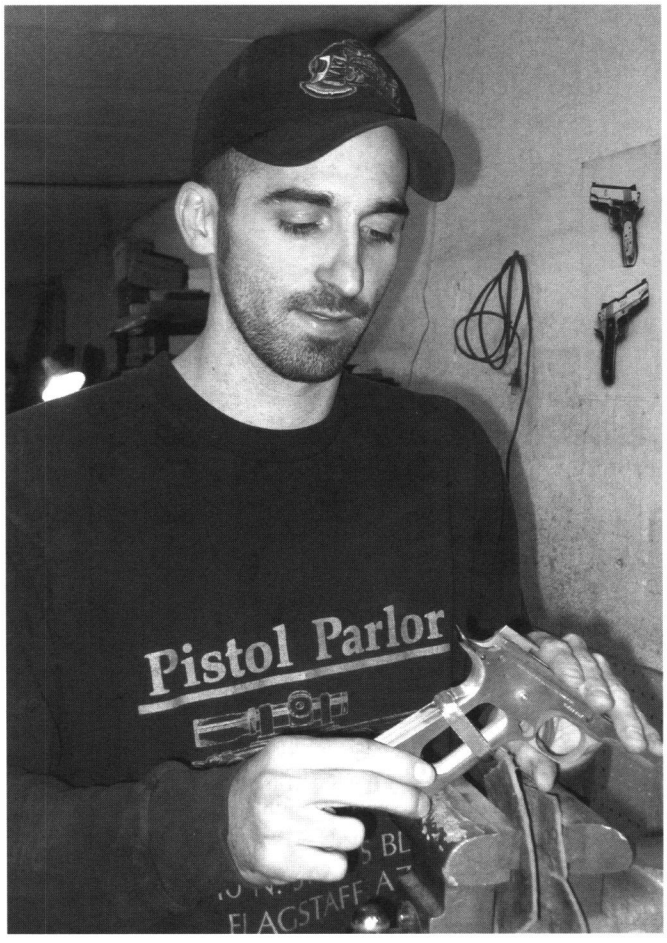


Still under the age of 30, with more high-speed experience under his belt that most pistolsmiths twice his age, Kase Reeder has already been turning out some of the finest 1911s ever, expertly refined versions of the basic form-follows-function fighting gun.

Kase Reeder

Continued

Legendary 1911 gunsmith Armand Swenson was a boat-man.

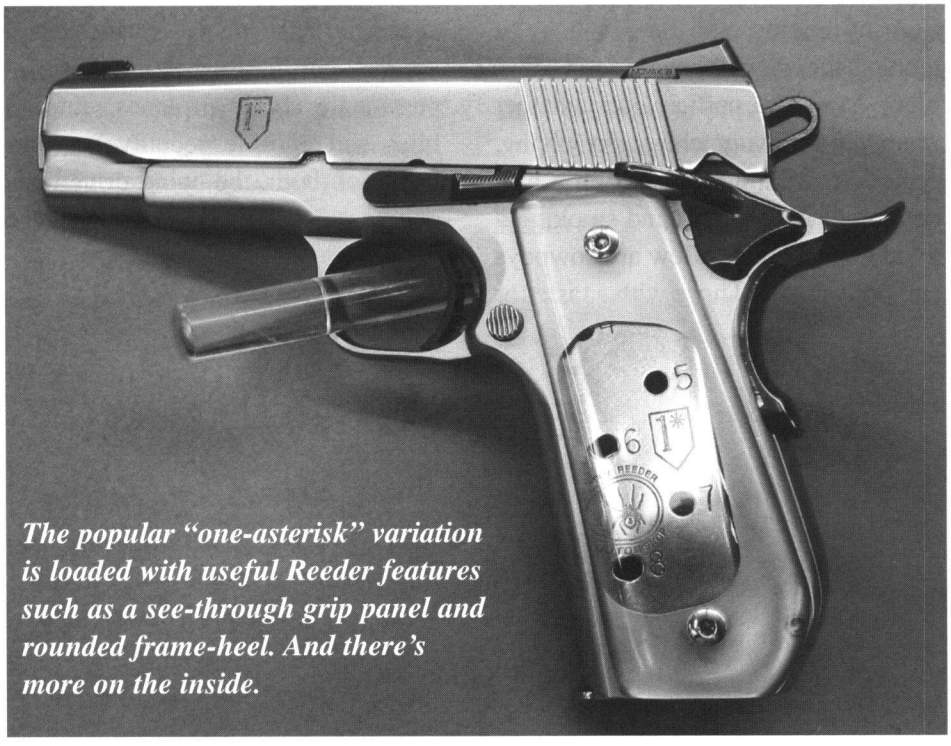
Speedboat racers know Swenson only as the designer and builder of a radical hydroplane boat-of-the-future. One of the most unusual boat designs in history, Swenson's hydroplane was powered by an aircraft engine and piloted by an automobile race driver. The boat's racing career was brief and disappointing, but Swenson's design innovations were so original that, 40 years after he built it in his own backyard, the boat was installed in the Seattle Hydroplane History Museum.

To gun-knowledgeable hunters, it was Armand Swenson's way with custom bolt-action hunting rifles that earned him acclaim, though he sought to keep his rifle-building business quiet for fear of being swamped. He liked solitude.

The talent which produced Swenson's greatest historical legacy, however, and with which his name is and will be associated more than any other, was his ability to coax the very best out of John Browning's 1911 pistol. Swenson was one of the earliest pioneers of that small group of talented gunsmiths dedicated to the big semiauto, and he was driven by an obsession for continuous improvements in accuracy, reliability and handling. Swenson approached his job with the traditional tools of the custom gunsmith — refined craftsmanship, talented hands and eyes, and an unusual capacity for the design equivalent of dignified understatement. He had an appreciation for the beauty of line.

When Swenson's 1911s first attracted nationwide attention, the term "race gun" had not yet been coined, nor had the bizarre design requirements yet been invented that would make the race gun about as useful on the street as an open-wheeled race car. Any leanings Swenson might have had toward the experimental, the radical, the interesting but impractical, he kept out of his gun work. That's what boats were for. Pistols, on the other hand, were serious business. Swenson made 1911s that were accurate and reliable, in a time when many considered those two qualities mutually exclusive. He made 1911s that were good-looking and practical, pioneered better sights (he used S&W K-frame revolver rear sights before the big Bo-Mars were dreamt of), developed the concept of melting the slide and manufactured the first ambidextrous thumb safeties. He proved that you could chop and channel the big government 45 down to concealed-carry size without giving up absolutely reliable functioning. Otherwise, what would be the point? He built a lot of very beautiful guns, and he built a lot of them for cops, as practical a market as anyone could imagine.

Fellow gunsmith Terry Tussey of California, who was greatly influenced by Armand Swenson's body of



The popular "one-asterisk" variation is loaded with useful Reeder features such as a see-through grip panel and rounded frame-heel. And there's more on the inside.

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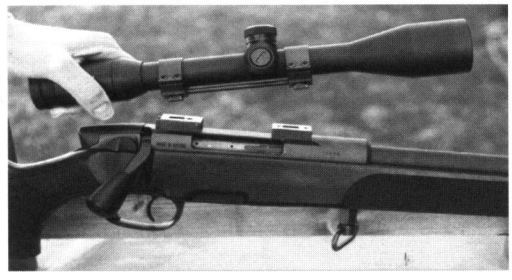

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work, once summed up his success thusly: "Armand combined classic good looks with function ... Armand always made form and function blend."

Today, there is again widespread agreement that the most desirable 1911 is an expertly refined version of the basic form-follows-function fighting gun. The quintessential Swenson touch, were it available in this day and age, would undoubtedly be in the greatest possible demand. If you get lucky enough to find a vintage Swenson gun for sale, a rare occasion today, you better buy it before the line forming behind you gets restless. Because, as a well-known shooter said to me recently, "They don't make 'em like Armand Swenson anymore."

Well, maybe they don't and maybe they do. There might be a new Armand Swenson out there that you just haven't heard about yet. He might be working out of his famous father's handgun shop in Arizona. Still under the age of 30, with more high-speed experience under his belt that most pistolsmiths twice his age, he may already be turning out some of the finest 1911s ever. He might be out there alright, and his name might be Kase Reeder.

"I started working on guns with my dad before I was old enough to see over the gunshop counter," Kase told me recently. "That makes it more than 20 years. I've been hunting with him that long too, just about everywhere in the US and to Africa several times. I started hunting with handguns. Then, when we started going to Africa a lot, I got into real big rifles. I had a 505 Gibbs when I was 15. At one point I was loading it with 700-grain bullets at 2200 feet per second. When I was a teenager, I

Continued on next page

Here Kase Reeder confers with fellow gunsmith Seth Mitchell in the Reeder shop.

As a teenager, Kase Reeder scoured the gun shows for Armand Swenson 1911s. He says, "I used to take them completely apart and play with them so I could see exactly why and how Swenson did what he did."

Kase Reeder

Continued

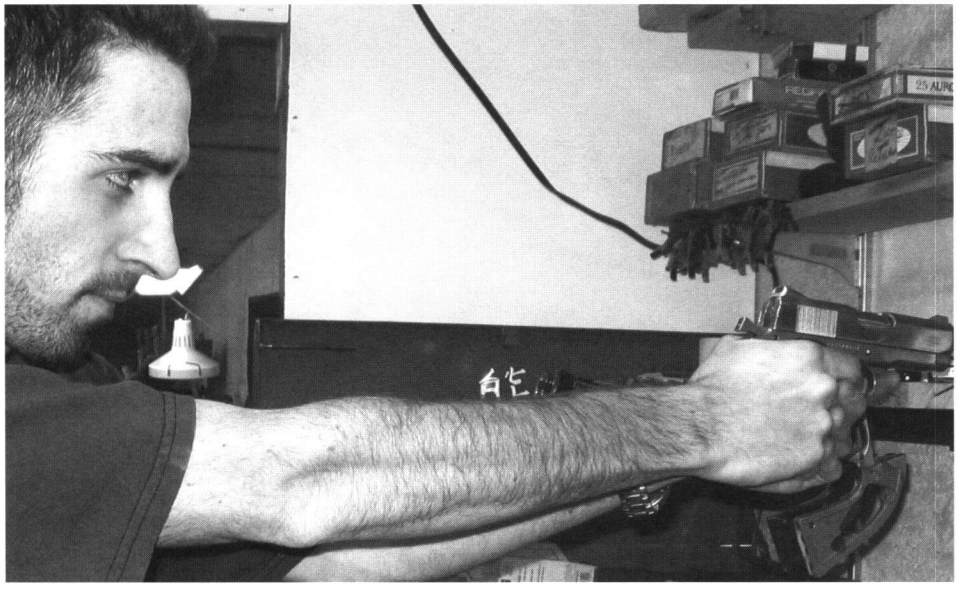
wanted the biggest thing I could shoot. I'd shoot 30 rounds out of that 505 in an afternoon's practice and it was about all I could handle. I developed my own African cartridge. We call it the 450 KNR (KNR for Kase Nelson Reeder). It's basically a 470 Nitro Express necked down to .458.

"Eventually, I developed a real bad flinch and went back down to a 375 H&H to try to get rid of it. I finally went back to pistols. I've hunted with 45 Win Mag Grizzlys, Automags, big revolvers and T/Cs — all the guns my dad has built and hunted with. I've always liked hunting with big automatics. The Grizzly was my favorite for a long time. I hunted Tennessee wild boar, sheep, lots of things with them. Certain times of the year you couldn't get close enough to hunt with any open-sighted gun, so I got into scope-sighted revolvers and T/Cs.

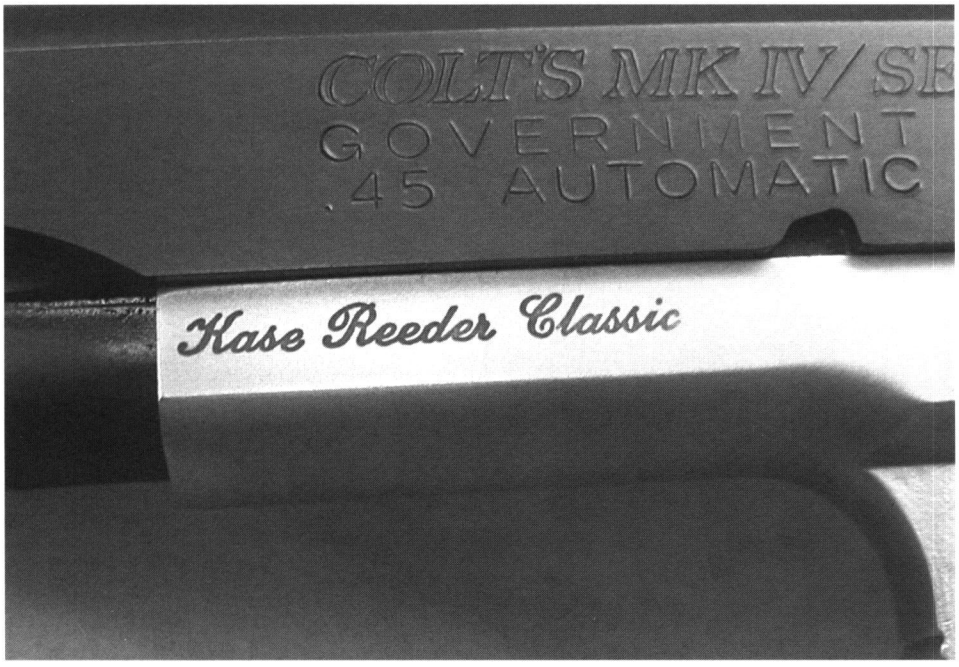
"I shot IPSC for several years, including the 3-Gun Nationals, and decided I like to shoot a 45 better than anything. I hunt with a 378 GNR (Gary Nelson Reeder) or a 410 GNR, but I like a 45 for everything else.

"When I was a kid hanging around the shop we always had a lot of great gunsmiths working there, including some great 1911 gunsmiths, and I would watch everything they did. I bought several Armand Swenson 45s at gunshows and I used to take them completely apart and play with them so I could see exactly why and how Swenson did what he did. I read everything the classic 1911 builders wrote. I built my first IPSC gun on a Para-Ordnance frame, which was kind of cheating. I built one on a Springfield. I even shot with an AMT longslide for a while. I like building and shooting stock guns, properly designed tactical guns, not race guns. But I finally had to decide whether I was going to spend my time building them or competing with them, because those are both full-time jobs if you do them at a serious level.

"Right now I'm building some IPSC/IDPA-ready guns on Commander frames. And I like to build more specialized guns for people who know what they want. I just built a 40-caliber gun on a 10mm Delta Elite, did some work on the extractor and magazine and such, so all the owner has to do to go from 10mm carry to 40-caliber competition is change the mainspring. I'm also working on some more "one-asterisk" models and a nifty



Kase Reeder was a highly ranked IPSC competitor for several years, says he likes to build all-around tactical guns, "a quality gun you can carry 24 hours a day and still go shoot a match with when you feel like it."



Kase Reeder's 1911s show every promise of becoming as classic as his father's big revolvers and T/Cs.

little three-inch backup.

"The classic 45 is coming back into the spotlight again, and I'm happy to focus my energies there. Basically, I'd say that I like to build an all-around gun, a quality gun you can carry 24 hours a day and still go shoot a match with when you feel like it."

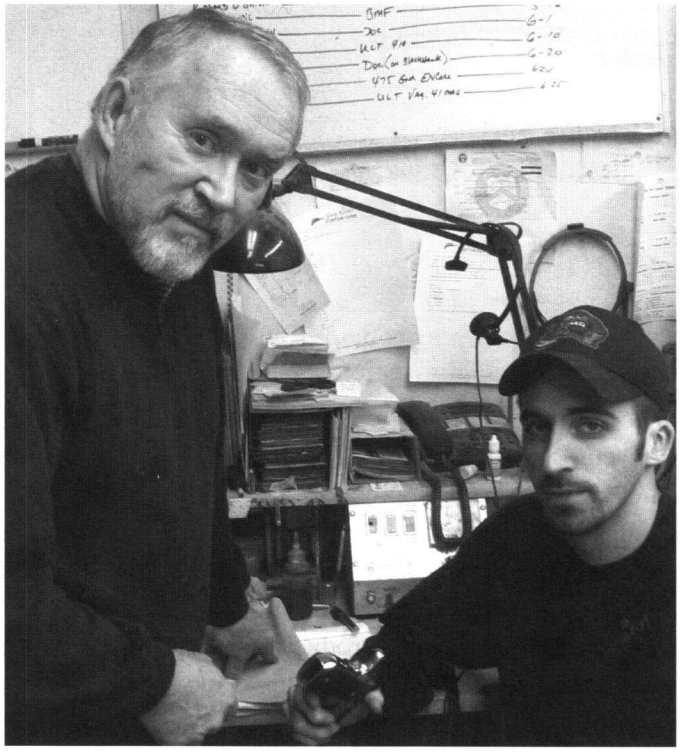
Sounds to me like the kind of gun Armand Swenson would be building if he were alive today. For that matter, it sounds like the kind of gun Kase's dad, Gary Reeder, was building earlier in his career, before market forces drew him inexorably along the path of big-bore hunting T/Cs and Rugers and fast-handling cowboy action sixguns.

"I'll always be a big fan of the 1911," Gary says. "In fact, I'm building one right now for a 50-caliber hunting cartridge I've come up with. But the defensive 1911, the tactical gun, the 45 ACP for daily wear and all-around use — that's something Kase has a particular genius for. He already has a lot of orders from some very gun-savvy guys, he's got a lot of good ideas, his workmanship is first class, and he's a workaholic just like me. I expect I'll retire and work out of his shop one of these days."

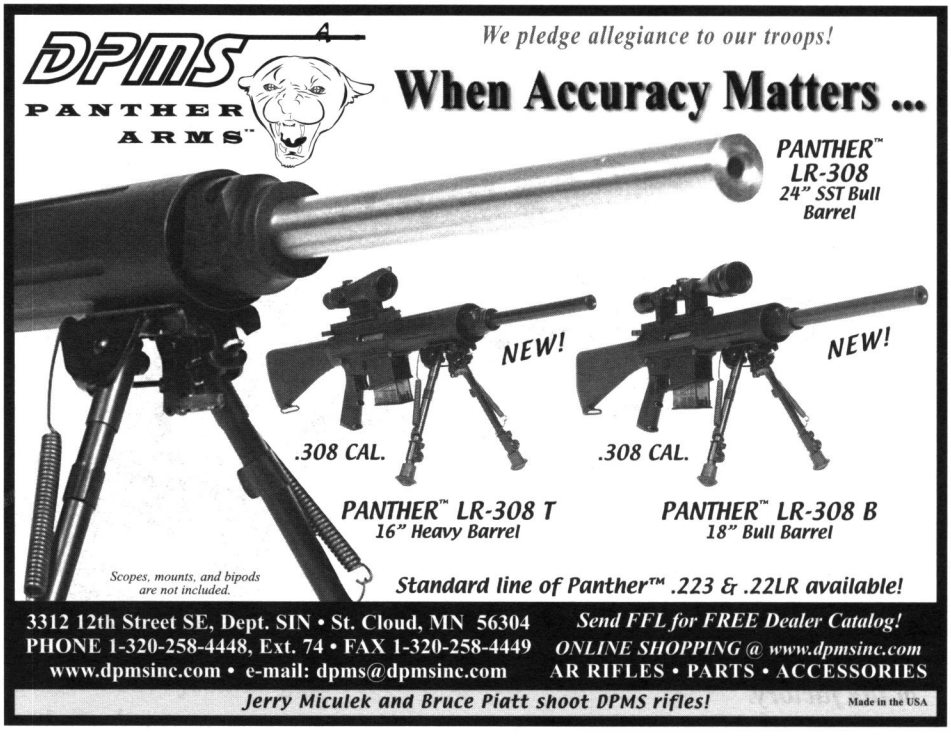
Gary Reeder was only kidding about the retirement part. He admits he's not the type. But as to the bright future of Kase Reeder in the custom 1911 world, that was not just a father's pride speaking. I've seen, handled and fired the guns. Clearly, the line of development from John Browning through extraordinary gunsmiths like Armand Swenson to a rising star like Kase Reeder remains unbroken.

In fact, one of these days in the far future, some shooter will undoubtedly complain that "They don't make 'em like Kase Reeder anymore." And some lone gunwriter will have to go out into the world and prove him wrong. Rest assured. The everlasting challenge of the near-perfect 1911 will never cease to attract the highest new talents successive generations of gunmakers can produce. You can bet your boat on it.

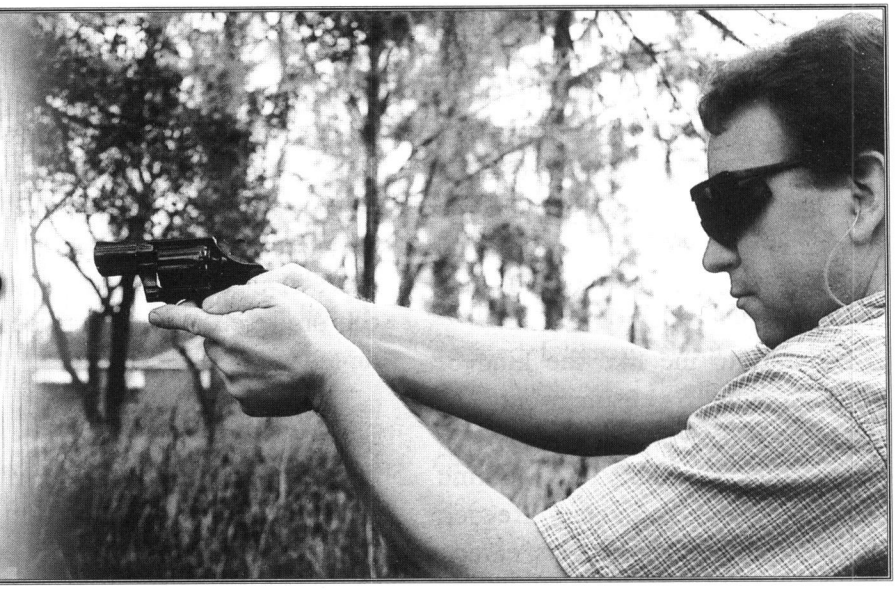
Robert H. Boatman is the author of *Living With Glocks* (Paladin Press 2002) and *Living With The Big Fifty* (Paladin Press 2004). He can be contacted at interboat@aol.com



Kase with his father Gary Reeder. Kase says, "I started working on guns with my dad before I was old enough to see over the gun-shop counter."



the Colt Detective SPECIAL



Gun dealer and collector Jeff Boss appreciates the superior shooting qualities of his Colt Detective Special.

BY MASSAD AYOOB

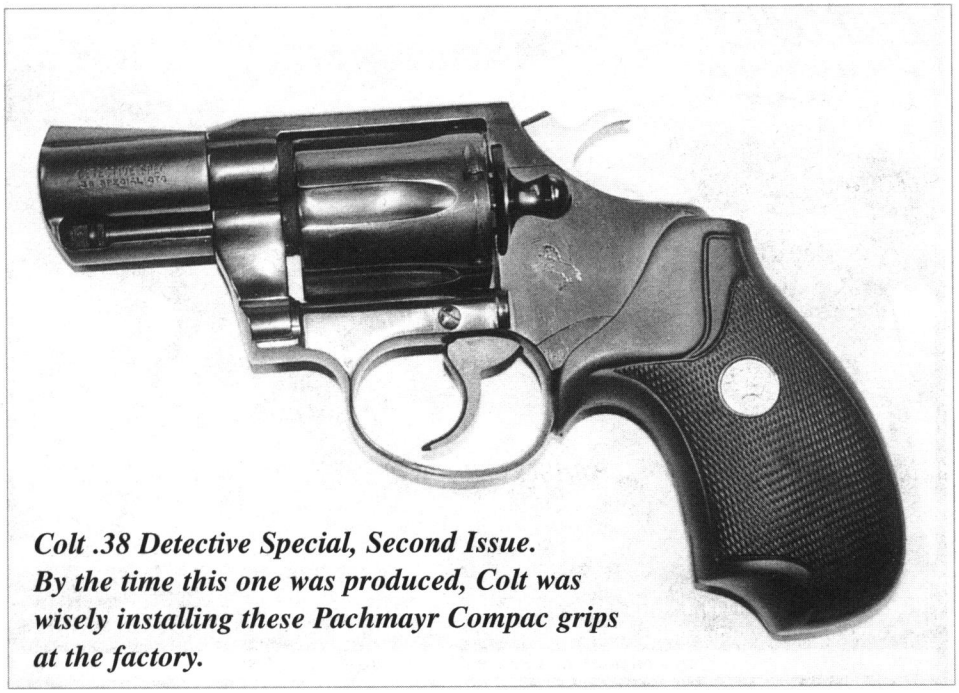
The first small-frame .38 Special snubnose, many connoisseurs believe, was also the best. The Detective Special spawned a family of classic protection guns, and more "firsts."

It was a revolver so classic in its concept that its name became a generic for others of its kind. Kleenex and Frigidaire were joined by Detective Special. Timelessly functional, it remains in wide use, even though discontinued.

A Brief History

Colt introduced the Police Positive double action small frame service revolver in .32 Long and .38 S&W in 1905. Two years later, they lengthened the frame and cylinder slightly to take the .38 Special cartridge, and the Police Positive Special variation was born. In 1927, they produced the same gun with a two-inch barrel and dubbed it the Detective Special.

That's it. That simple. But so many of the great ideas are. The wee six-shooter weighed but 21 ounces, a featherweight in the time of all steel revolvers, and was the smallest and lightest .38 Special ever made in a time when that caliber utterly ruled law enforcement and had captured the civilian self defense market's attention as well. The first guns had square butts; some years later, the edges were rounded to enhance concealment.



Colt .38 Detective Special, Second Issue. By the time this one was produced, Colt was wisely installing these Pachmayr Compac grips at the factory.

When Colt resumed production after WWII, changes happened slowly. Checkering on the cylinder latch and trigger face was dropped. An aluminum frame clone of the Detective Special emerged from the USAF Aircrewman revolver project, and in 1950 it became the first aluminum revolver on the market. Named the Cobra, it weighed half an ounce under a pound and was an instant hit. In 1955 the Agent was added to the line, a Cobra with a shortened grip frame that concealed better and took another ounce off the weight.

In the early '50s, Colt determined that the snubby's ejector rod could stand to be a little longer for more efficient function, and it was extended almost to the muzzle. The front sight was also flattened toward the

rear and serrated. For a brief period around then, Colt tried to cut costs with plastic grips, but the market rejected that and the checkered wooden stocks with Colt medallions were soon back. Circa 1962, as a production economy, all these little guns were made with the short-butt frame, though the Cobra and Detective Special had longer stocks to keep the original configuration.

Another early '50s development was the Colt Hammer Shroud, which bolted onto the frame with three screws. It shielded the hammer from snagging in pocket or clothing, leaving the tip exposed in a channel so the gun could be thumb-cocked if need be. S&W responded a couple of years later with their Bodyguard, a Chief Special with "built-in hammer shroud." That gun remains in the S&W line, while hammer shrouds for Colts can be ordered from Bob Schwartz at Waller & Sons (603 863-4177).

By 1972, the firm had produced some 400,000 Detective Specials alone, according to Ned Schwing. (1) The guns were given a make over, and the so-called "Second Issue" was born. The chief difference was a heavier barrel, with a shroud that protected the ejector rod in the S&W Magnum style. The streamlined new front sight was steeply ramped. Agent stocks remained the same, but the Detective Special and Cobra got oversize "combat" grips. These eventually gave way to factory-installed Pachmayr Compacs, which many shooters had determined were the most "shootable" grips for

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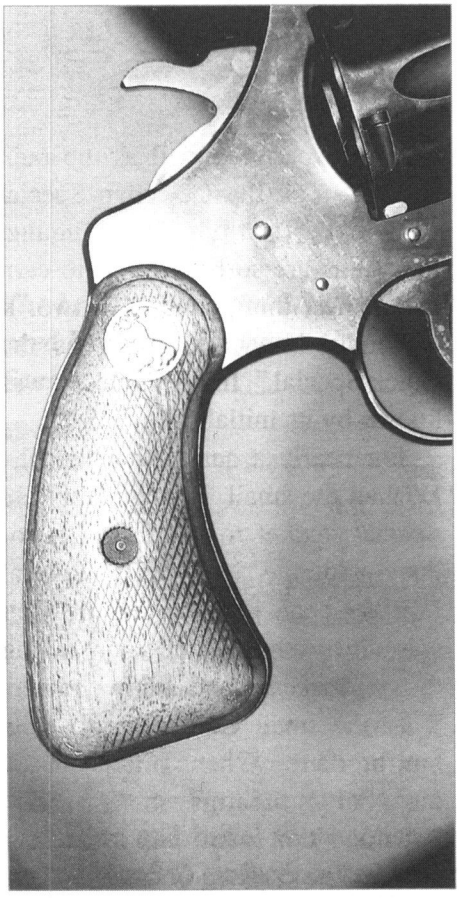
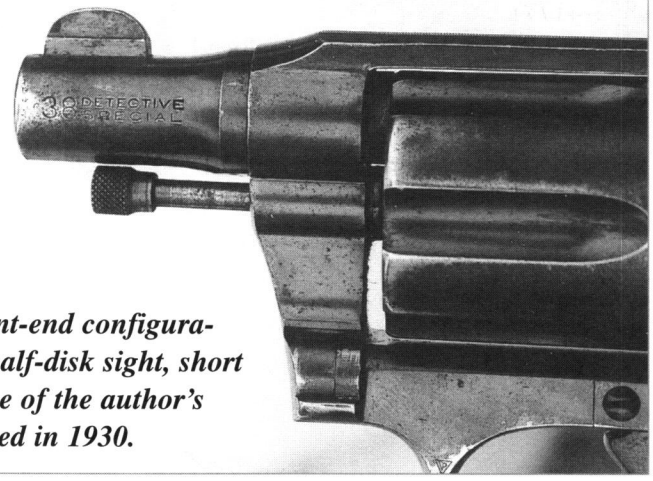
The configuration in which those of the author's generation remember the Detective Special. This First Issue specimen is circa late '50s-early '60s.

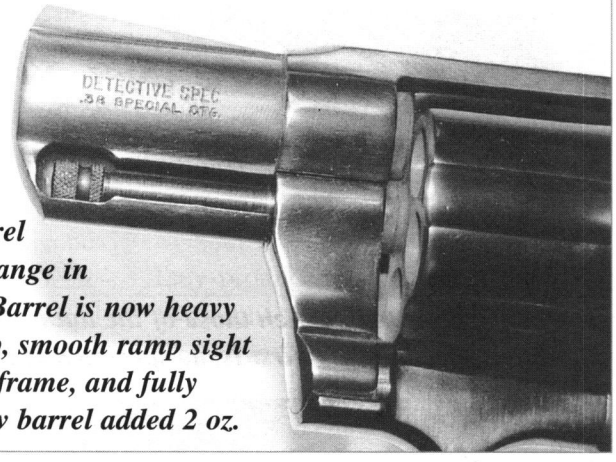


Flattened checkering shows that this Detective Special was carried much. Skeeter Skelton noted that this grip shape was particularly suitable for handgun retention.

Perfect fit to the hand made the D-frame Colt a favorite. Note forward-sitting cylinder, which with this late model's heavy barrel adds to stabilizing, muzzle-heavy feel. Trigger reach is exactly right for double action work with Pachmayrs.



(1st of 2) Original front-end configuration: tapered barrel, half-disk sight, short ejector rod. This is one of the author's Dick Specials, produced in 1930.



(2nd of 2) ...Post-'72 barrel configuration was key change in Second Issue D-frames. Barrel is now heavy and untapered, with steep, smooth ramp sight going almost back to the frame, and fully protected ejector rod. New barrel added 2 oz.

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The Colt Detective Special

Continued

these small revolvers.

In 1986, Colt was in financial trouble. The slightly smaller and lighter Smith & Wesson Chief Special and its brethren had long since been stomping the Colts in sales. Colt dropped the snub-nose .38s.

They returned to the market in 1996 with new lockwork and in stainless steel as the SF-VI (small frame, six shot). A year later, a subtle redesign of the mechanism was accompanied by a name change that paid homage to the original sobriquet: "DS-II." Beefed up to take the .357 round, it became the Magnum Carry. Unfortunately, none of these revolvers are currently in production.

Pedigree

Gun experts as well as the rank and file took the Detective Special to their hearts from the beginning. Few guns are so beloved as to earn nicknames; this gun carried two. It is fondly known to many as the "Dick Special." In my circles, it was known by its initials: the "DS."

For nearly a quarter century, the DS had the small frame hideout .38 Special market to itself. The introduction of the S&W Chief Special in 1949 changed that, but the Colt was always hugely popular among the *cognoscenti,* and many shooters liked the small Colt better than its big brothers. When I first toured the NYPD firearms unit in 1978, I learned that while no more than 10% of the cops chose the big Colt Official Police over the S&W Model 10, fully 30% or more carried the Colt instead of the Smith as their off duty gun.

Mills Lane, the famous Nevada

judge and boxing referee, was a Colt man. He once said, "People talk about their friends, Mr. Smith and Mr. Wesson, but I have Doctor Colt. You see, Mr. Smith and Mr. Wesson only have five shots, and Doctor Colt has six." This was, in truth, one reason so many cops liked it for off duty or backup. The one more shot meant a 20% increase in firepower when only revolvers were allowed.

John Dineen, the famous Chicago cop and police union head, carried a Detective Special inside his waistband with a Barami hip-grip. It has been said that the current commissioner of the NYPD carries a Detective Special even now. Vern Geberth, commander of the Bronx Homicide Task Force and perhaps the nation's leading authority on homicide investigation, carried a Second Issue Detective Special. A First Issue DS was the preferred .38 snub of Bill Allard, who set the record for fatal shootings among NYPD's elite Stakeout Squad. Bill told me it was simply a more shootable gun for him than the small frame S&W. Bill's partner Jim Cirillo, no slouch in the gunfight department himself, carried a hammer-shrouded Cobra as his off duty and backup piece.

Even today, hammer-shrouded Colt Agents are the preferred snubbies of famed combat small arms instructors Ray Chapman and Clint Smith. An Agent graces the cover of Ed Lovette's excellent recent book on the tactical use of the short-barrel revolver. When I first met Sheriff Jim Wilson, he would no more put on his jeans without a Smith & Wesson Centennial in the front pocket than without his wallet in the back, but he recently confessed in print to having switched to a particularly nice, pre-'72 vintage Detective Special as his belly gun of choice.

The Detective Special was widely issued by the military to CID investigators and to senior officers.

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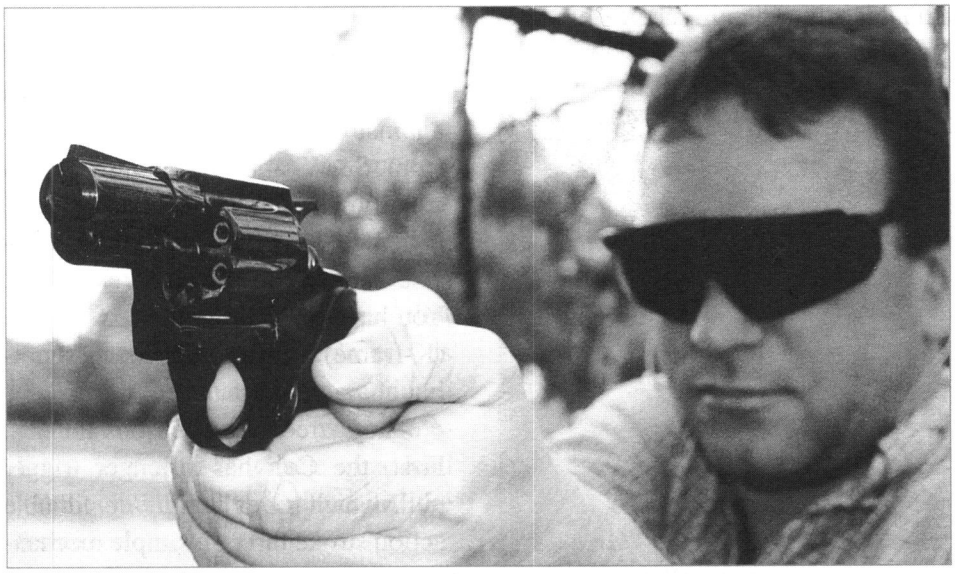
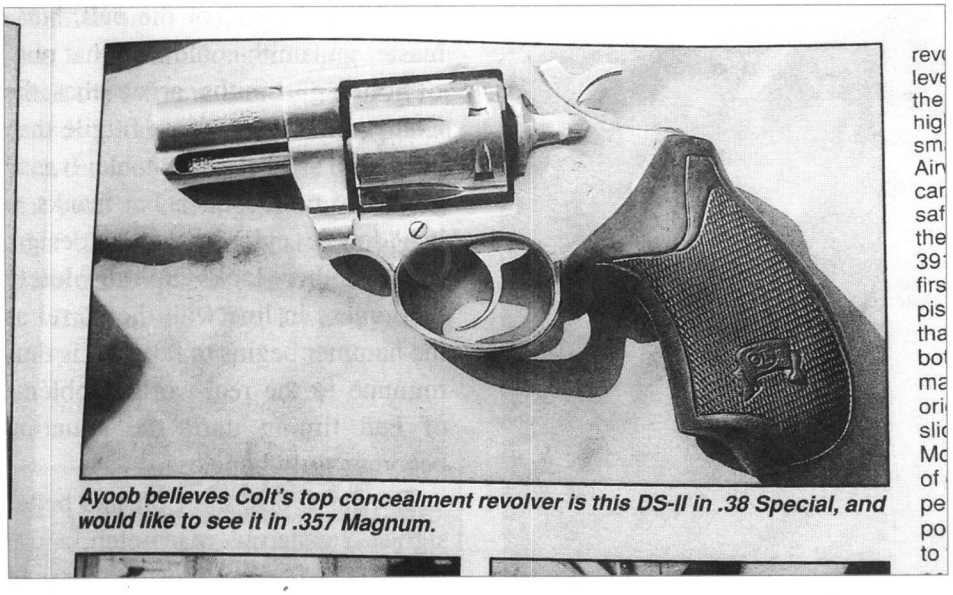
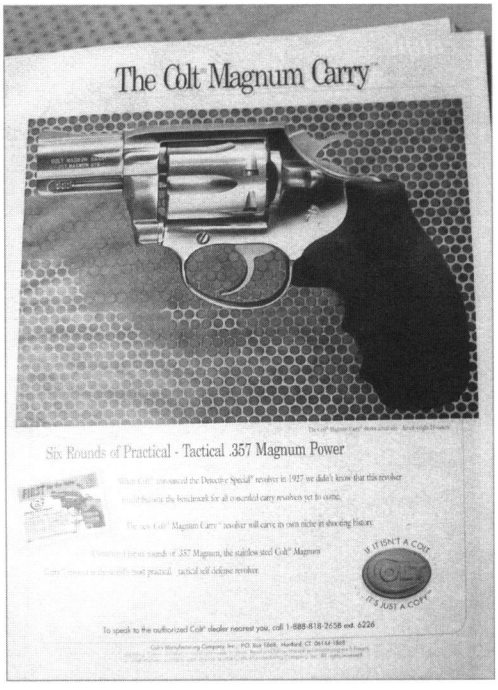


The brutally powerful LSWCHP 158 grain +P FBI load was easily managed by even alloy-frame Colt snubs, let alone Jeff Boss' all-steel Detective Special.



Ayoob believes Colt's top concealment revolver is this DS-II in .38 Special, and would like to see it in .357 Magnum.

(1st of 2) "Back in the day," author called for a .357 D-frame in the pages of his "Complete Book of Handguns" ...



(2nd of 2) ... and Colt complied with the Magnum Carry, the last of the breed...so far.

The Colt Detective Special

Continued

General George S. Patton carried one on days when he needed to "dress down" from the big ivory-handled sixguns that were his trademark, and General Dwight D. Eisenhower was issued a Detective Special that went with him to Europe in WWII.

If it was good enough for real heroes, it was good enough for fictional ones; after all, it was called the *Detective* Special, wasn't it? Humphrey Bogart popped a 2" Colt .38 from a hidden dashboard compartment in his coupe to win the day as Philip Marlowe in "The Big Sleep." Jack Webb, as Sergeant Joe Friday, had a Detective Special for the first season of "Dragnet" in the '50s before switching to a 2" S&W M&P. In Richard S. Prather's popular series of Shell Scott private eye novels in the '60s, he armed his title character with a Colt Detective Special, carried in a "clamshell shoulder holster" presumably inspired by the real-life Berns-Martin Lightning shoulder rig. The ultimate comic strip detective, Dick Tracy, carried a post-'72 Detective Special as a primary weapon for a while, and prior to that was known to stuff a pair of earlier model Colt Agents into twin ankle holsters.

But it was real-life shooters, not fictional characters, who pronounced the DS to be worthy of the "Special" appellation. The reason lay not just in the advantageous size, but in this classic revolver's shooting characteristics.

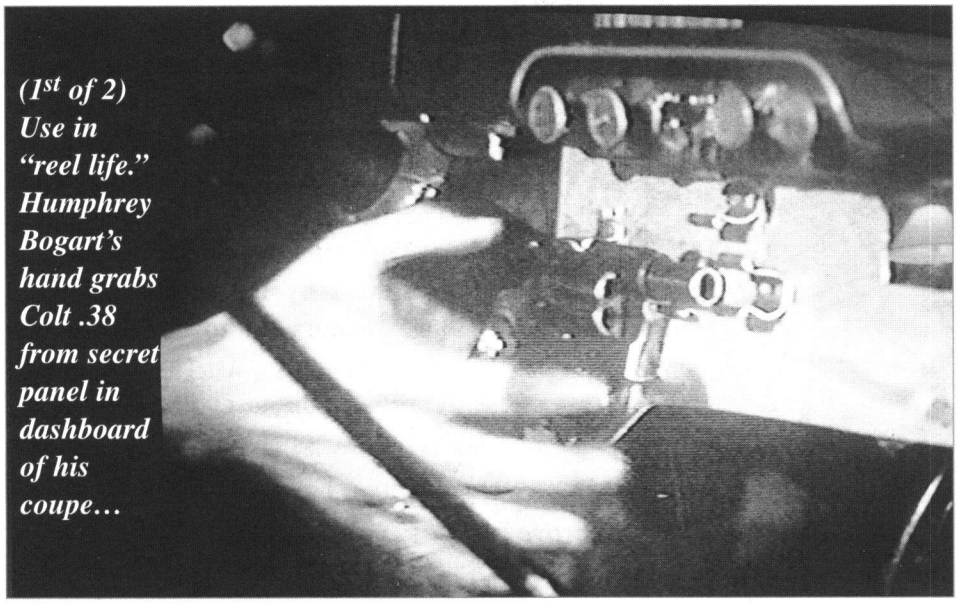
Shooting the Detective Special

In any *shooting* comparison of these little D-frame six-shot Colts against their J-frame counterparts from S&W and beyond, the Colts usually win. Only the Ruger SP-101, a heavy duty five-shot with a DS-size frame, can equal or exceed it. You have to go up to the service size (K-frame) Smith to get better shooting characteristics.

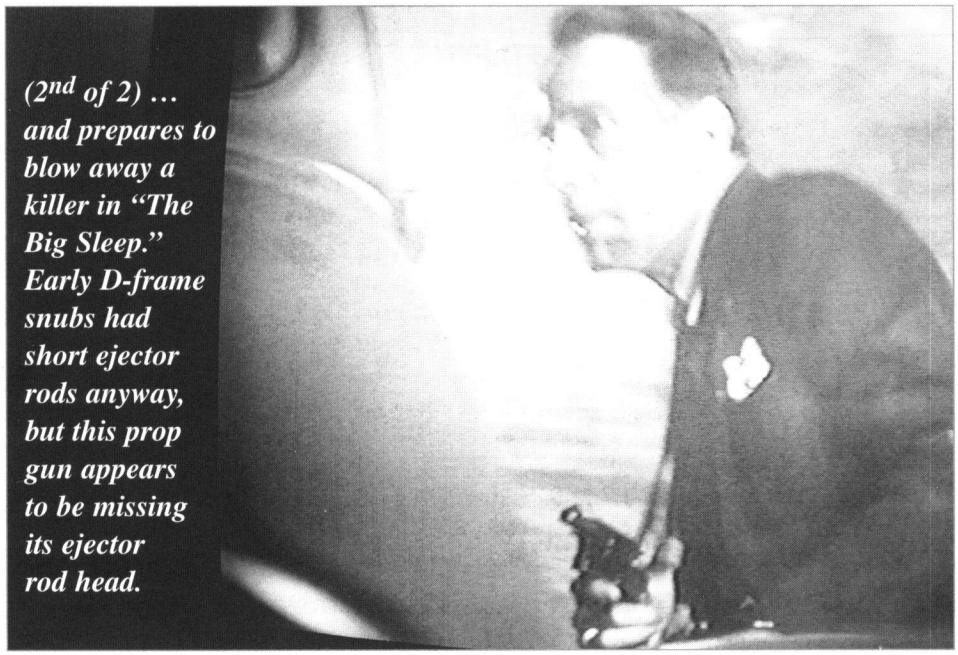
There are several reasons for this. First, the Colt has a longer trigger pull, which gives it a *lighter* double action stroke through simple mechanical advantage. Yes, until the sweet single-stage pulls of the DS-II and Magnum lockwork, the D-frame's V-shaped mainspring would bind or "stack" at the end of the pull, but a master gunsmith could take that out.

Some gunsmiths argue that the Colt mechanism is more fragile than the Smith's. That's debatable. It may go out of time sooner, but thanks to its "double cylinder hand" design, the chamber locks up absolutely motionless in line with the barrel as the hammer begins to fall, and is thus immune to the real-world problems of bad timing until the situation becomes truly hopeless.

By the 1960s, the Colt had better sights: a generous rear notch, and a wide 1/8" front. For most of that time the Smith had tiny 1/10" front sights with proportionally narrow notches,



(1st of 2) Use in "reel life." Humphrey Bogart's hand grabs Colt .38 from secret panel in dashboard of his coupe...



(2nd of 2) ... and prepares to blow away a killer in "The Big Sleep." Early D-frame snubs had short ejector rods anyway, but this prop gun appears to be missing its ejector rod head.

and while these were later improved, the Colt was still better. The flattened, serrated front sight from the mid-fifties through 1972 was the best; the streamlined ramp of the Second Issue was *too* streamlined, and too smooth. It reflected overhead light and "grayed out." Fortunately, gunsmiths like Bill Laughridge at Cylinder & Slide Shop (402-721-4277), and Grant Cunningham in Oregon (503-656-3801) can easily and inexpensively alter a post-'72 front sight into something you can see quickly and utilize effectively.

The Colt had a reputation for shooting high left with its fixed sights, particularly in the models between 1972 and 1996. The company advertised that it used lasers to sight in their fixed sight revolvers, and I can only presume that whomever sighted in the laser was cockeyed. Fortunately, it's nothing a pistolsmith can't fix for you, sometimes just with a whack of a lead babbit judiciously applied to the frame.

The D-frame Colt is one of those rare guns like the Browning Hi-Power that came out of the box with the arcane ability to be comfortable in small hand and large hand alike. It has a slightly longer trigger reach than the J-frame Smith. It's easy for hands of many sizes to reach that "sweet spot" at the crease of the distal joint of the trigger finger where that digit has the most leverage to stroke a double action trigger back.

Back in the '70s, I was a young

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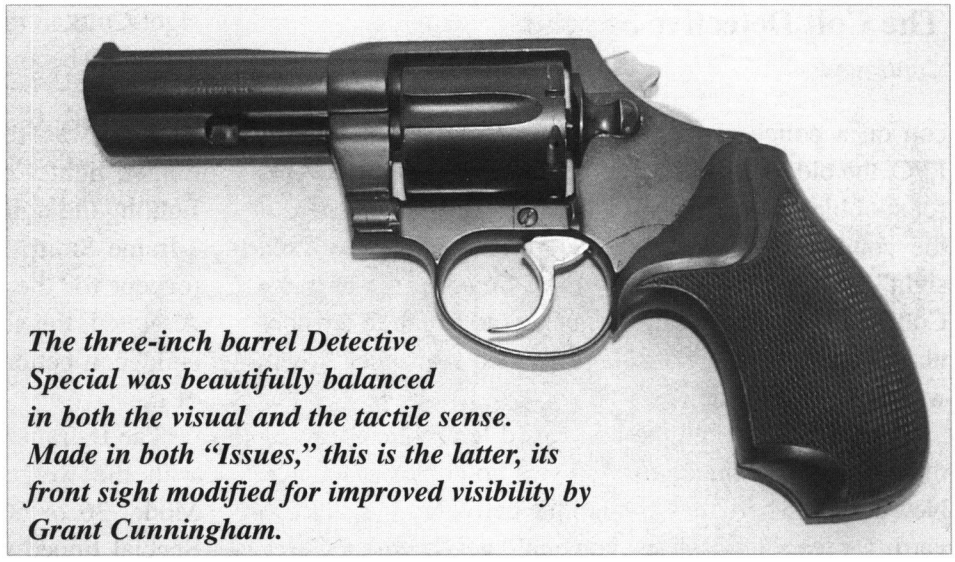
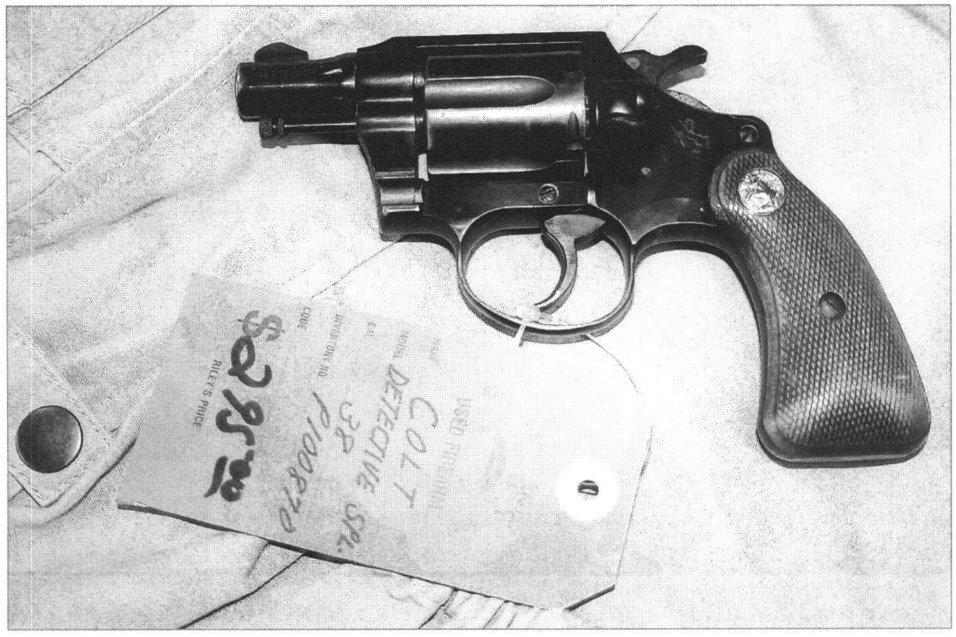


The three-inch barrel Detective Special was beautifully balanced in both the visual and the tactile sense. Made in both "Issues," this is the latter, its front sight modified for improved visibility by Grant Cunningham.

Ayoob finds the Magnum Carry very controllable even one handed, and mourns the passing of Colt's baby .357.



A great many of the 400,000 pre-'72 Detective Specials are available second hand, often at good prices like this one.

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The Colt Detective Special

Continued

cop on a police pistol team. The game we played was PPC, the old FBI revolver course. There were side events for snubbies called "off duty gun matches." In our part of the country, they were limited to "small frame, fixed sight" guns, defined as the J-frame Smith or the D-frame Colt, and limited to fiveshot sequences to be fair to the popular S&W. We tried both...and learned real quick which was the most shootable.

I had the Chief and the DS. Liked 'em both. Shooting them both "over the course," it was no contest. Down in New Jersey, where they limited the belly gun match to 15 yards for fear of crossfires, you could get by with a Chief. But come further north where these events were shot at the 25 yard line, and the Colt would beat the Smith every time in the same shooter's hands. And in New Hampshire, where for a while the 2" guns were shot over the same 60-shot, 7- to 50-yard course as the service revolvers, it was Colt all the way if you wanted a decent score. Later, when 2 1/2" and 3" K-frames became popular for detectives and off duty work, they of course superseded the 2" fixed sight Colts in turn, with the short, adjustable-sight S&W Model 19 becoming the gun of choice for the off duty gun matches.

Why was the Colt so much more shootable? The longer, lighter pull made for much better shooting than fighting the tight little coil mainspring of the short-stroke J-frame Smith. The Colt was a little bigger in the grip (except for the Agent) and gave us more to hang onto. As noted, the sights were better. There may have been a smidgeon better inherent accuracy, but that was the least of it.

The D-frame Colt kicked less. A little of this had to do with the weight difference: an all-steel Chief Special Model 36 or 60 weighed 19 ounces, while a Detective Special tipped the scales at 21 ounces in its first incarnation and 23 ounces in the '72-series. Perhaps more important was that the weight distribution of the Colt brought the balance more forward. The gun seemed to hang steadier on target, and its muzzle seemed to jump distinctly less.

Stocks? I never cared for the '72-series design. Colt did themselves and the shooters a favor when they went to Pachmayr Compacs on the DS, SF-VI, and DS-II, and

The Colt Detective Special (left, in its first form — half-coin front sight, short ejector rod, square butt) owned the snub-nose .38 Special market for nearly a quarter century. Then the Smith & Wesson Chief Special (right, shown with Herrett stocks) took over sales dominance.

Small frame .38 Specials, circa 1996. Top, Colt DS-II. Center, S&W Model 640. Below, Ruger SP-101.

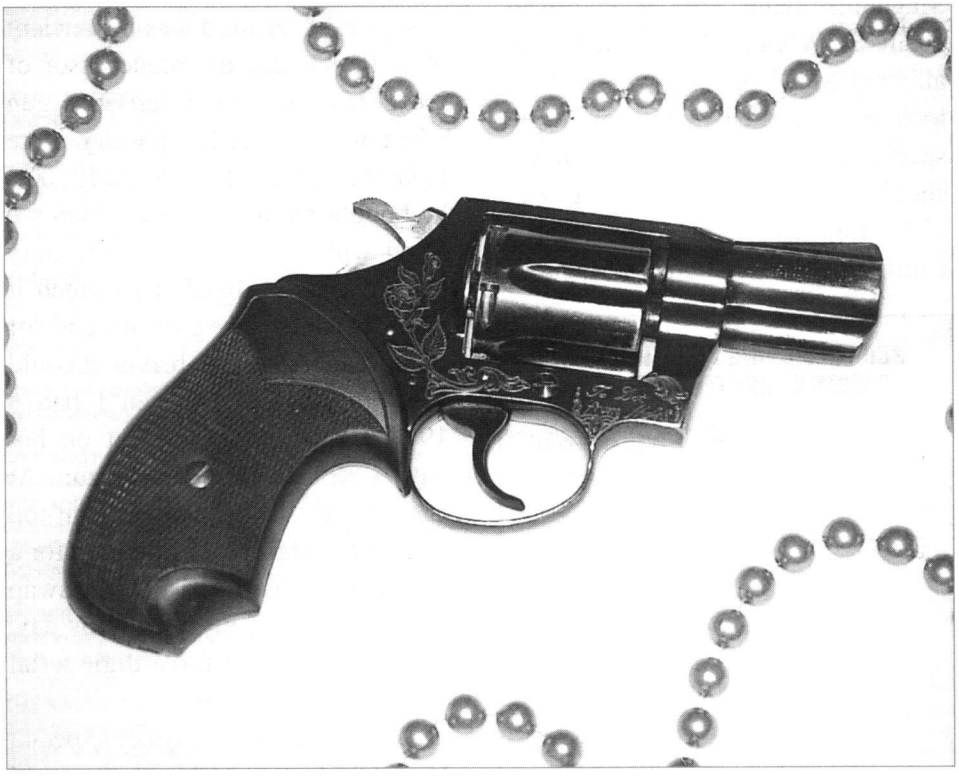
Hogues on the Magnum Carry. To us baby boomers, the quintessential Detective Special is the one with the exposed ejector rod and the distinctive grip frame that is narrow at the top and wide but rounded at the bottom. The legendary Skeeter Skelton, in his very first article (*GUNS* magazine, back in the '50s I think) talked about snub-nose .38s, and his preference for the DS was clear when you read between the lines. He noted that this particular grip shape was particularly suitable for hanging onto your revolver when the bad guy was trying to wrench it away from you. This was a topic Charlie Skelton had some personal street experience with, and when he talked about it, those of us who knew him listened.

In that article (one of the few that he bylined with his given name of Charles instead of the nickname Skeeter), Skelton showed how to utilize this type of grip shape effectively. By tucking the little finger under the butt, any tendency to roll back in the hand upon recoil was mitigated.

This was particularly important when firing powerful rounds. I agree with Ed Lovette, who notes in his belly gun book that the all-lead +P semiwadcutter hollowpoint 158 grain (aka "FBI Load," "Chicago Load," and "Metro Load") hits like a .45 hardball round out of a 2" barrel

Continued on next page

The screw-on Colt hammer shroud was removable for cleaning (it picked up lint), and S&W followed with their Bodyguard, whose hammer shroud was integral. Left, author's Dad's shrouded Cobra .38; right, author's Bodyguard Airweight, both purchased new in '60s.



Engraved with a long-stemmed rose, replete with Colt Custom Shop action, this '72 series DS is owned by author's ex. It once put six shots into a silhouette target at 100 yards.

Timothy M. Barlow
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The Colt Detective Special

Continued

.38. The record is clear from more than 30 years of intensive use on the streets by police. But that round also has a nasty snap to it. A D-frame Colt, ounce for ounce, absorbs that better for the shooter than a J-frame anything, assuming similar style stocks and shooting techniques.

Speaking of which, the Colts were rated for +P before any of the competition. Back when S&W forbade +P in their aluminum frame Airweights, Colt told shooters to go ahead, and check the gun every few thousand rounds of +P and send it in for a tune-up if they were worried. In all-steel construction, it was no problem at all. The Colt cylinder's bolt cuts were off-set from the chambers, technically allowing for a stronger cylinder.

When the time of the baby Magnums came, this was proven again. S&W's first J-frame .357, the all-steel Model 640-1, was seen to lock up repeatedly with multiple specimens on our ranges when we shot it hot and heavy with full power 125 grain Magnum loads. Colt's equivalent, the all-stainless Magnum Carry, just ran and ran. Back in the '70s, a Colt executive confirmed what contemporary gun writer Jac Weller had written: they had indeed bored out Detective Specials to .357 Magnum and found that they'd go 5,000 rounds without a problem. They just hadn't produced the gun because they didn't think anyone could handle the brutal recoil back then.

The Detective Special and its cousins, including the finely finished, adjustable sight Diamondback target variation with adjustable sights, are at their best with a custom action. Cunningham and Laughridge, cited above, would be my choices. There are a whole lot of folks who can do a fine S&W action job for you, and not a lot who know the arcane secrets of the more complex Colt mechanism. These guys do.

Personal Experience

My dad was a Colt man. The first handgun I ever fired was his ancient New Police .32, the predecessor of the Police Positive. I carried a gun when working in his jewelry store from the age of 12. In the early '60s, he bought me a 2" Cobra which we fitted with a hammer shroud. Only trouble was, he liked it so much it soon became his gun instead of mine. That wasn't as bad as it could have been, since by then I had a 1911 under my jacket, but on hot days I still wanted a belly gun. At age 16 or so I traded my flat-top Ruger Blackhawk .44 Magnum for a Smith Bodyguard Airweight, a swap for which I kick myself to this day. The flat-top had a three digit serial number. But, I digress...

Dad gave me a Chief Special Model 36 for my 21st birthday, and I used that as my belly gun for a while, but shortly after I was married Colt announced the '72 series DS and I bought one. It supplanted the Chief on days when I figured a snubnose .38 was enough to carry. Later, I used it a lot as a backup gun. During the period when I carried a Smith & Wesson K-frame .357 Magnum as a police duty revolver, my backup was *always* a D-frame Colt, usually a DS or an Agent. The cylinder diameters were the same, and they would take the same HKS speedloaders. I filled the latter with .38 hot loads, either the FBI stuff or +P+, on the theory that if my service revolver was destroyed, lost, empty, or snatched, I still had 18 rounds with which to fight.

My wife became a Colt fan. I put together a hammer-shrouded Agent with Barami hip-grip that rode nicely inside the waistband of her slacks under an untucked blouse in summer. In winter, she preferred the solid Detective Special in shoulder holster or carcoat pocket. I sent one down to the Colt Custom Shop, which did an absolutely primo action tune on it. Then, I brought it to an engraver whose work at a gun show seemed good enough. I told him to cut in a long-stemmed rose, and inscribe "To Dot from Mas." I wrote it in block capitals so there'd be no misspellings.

Unfortunately, we didn't know each other, and he figured M-A-S had to be initials. Thus, it came out reading, "To Dot From MAS".

She showed the gun to one of her friends one day. The friend saw my name in all caps and said sympathetically to Dot, "God, your husband *is* arrogant, isn't he?"

(1) Schwing, Ned, "2003 Standard Catalog of Firearms," Iola, WI: Krause Publications, 2002, P. 299.

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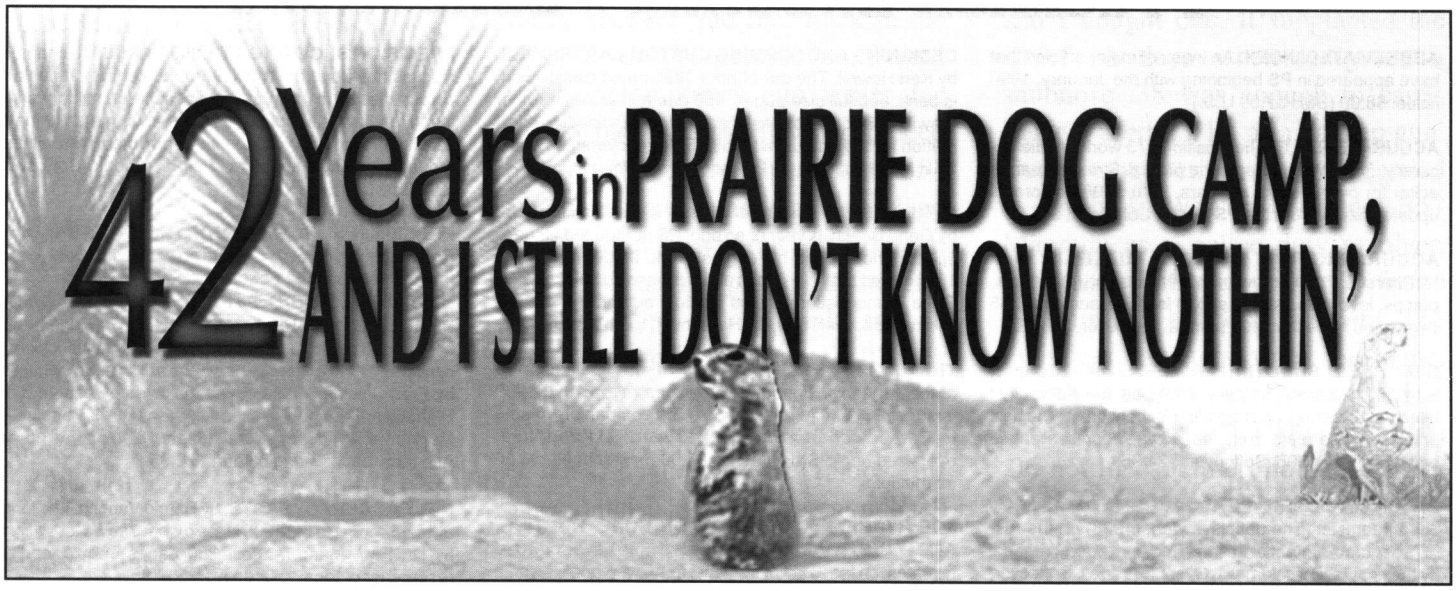

BY JACK RUSH

Varmint hunting was nothing new to us in 1962, when we scared heck out of our first prairie dogs. We just didn't know we were varmint hunters. We had hunted fox with a vengeance in Iowa, occasionally collecting one, had let no ground hog escape harassment, and neutered an awful lot of little 13 lined ground squirrels. The word "varmint" had probably never crossed our lips. We just did what farm kids did in those days.

I was about 14 years old when the first centerfire rifle became mine, a Savage 99 in 250/3000. I have never quite recovered from my addiction to this fine cartridge. Loaded with Remington 60 grain hollow points, over a couple teaspoons of HiVel #2 and guided by a Weaver 6X scope it was one deadly outfit—in my mind, anyway.

About the time I was 18, some darn fool gun writers had convinced me that the 243 Winchester was the way to go, and I bought an FN Supreme Mauser and graduated up to a Bushnell 10 power scope. It only took 50 pounds of Hodgden 4831 powder and 3 Douglas barrels to prove to me I had made a poor decision on calibers and a good decision on rifles. And that is about when I learned how to say "varmint".

Some of my friends were shooting Remington 722's in .222 with tremendous results. For some reason, I was too dumb to see the big advantages of the .222, those being accuracy in the half inch category, low recoil, (so you could still see the target after pulling the trigger), and pretty cheap to shoot. I plodded along with the 243 for several years, including quite a few of the early prairie dog camps.

We got our feet wet in Western varmint shooting about 1960, deciding late one evening that we would go to the Big Horn Mountains in Wyoming and see what a rock chuck looked like. Jerry Denzler and I took off West with my 243 Mauser, a Rem 722, and a peep sighted Swedish Mauser in 6.5x55. We made our way to a big valley above Buffalo, Wyoming. And sure 'nuff, there on the grassy hillsides stood the legendary rockchuck. We laid out some pads on a big rock and on a fallen forest giant and proceed with luck and skill to dispatch the critters. Wow! We were suddenly varmint hunters!

Little was being written about varmint hunting then, as compared to now, but one thing we were pretty sure of. Varmint hunters didn't sneak up, they shot from as far as they could see 'em. This prompted the craziest long shot I ever witnessed. On a rock about the size of Gibraltar, way down the canyon, I could make out a chuck sitting on top of the rock. The top was connected to the grassy slope behind. I asked Jerry if he could see it. I pointed out a big log pointing down the slope, with the bottom end of it pointing directly at the chuck. Jerry put the peep sight about 40 feet up the log, directly above the chuck. He launched a big old pencil size 6.5 bullet, and low and behold, the chuck pitched off the rock into the creek bottom below. Since Jerry had no way of seeing the chuck, he spent two hours climbing treacherous slopes to prove to himself it had really happened. The Swede was an accurate rifle, and we were good country boy shots, but we knew luck when we saw it.

At that time, little if anything was being written about prairie dog shooting, though it was the beginning of the great prairie dog "era".

The next year we vowed to try to get permission to shoot a prairie dog town. We had seen them in our travels. Jerry included a "citizens band" radio in our gear, over my protests. Then, as now, I was not in favor of new communication gadgets, especially wireless ones. I was wrong, he used the radio to get us permission to shoot a nice dog town south of Buffalo. This was a whole new thing. Never had we imagined so much shooting on live targets, except maybe some ground squirrel cow pasture shooting with 22 rimfires. Even that was pretty small potatoes compared to what we were looking at in this dog town. Since the dog town was within sight of a main highway, the dogs were not virgins. They were regularly poked at by locals. They were not accustomed to the accurate, flat shooting 222 and 243. It took them quite some time to learn that 200 yards was not far enough for safety. Jerry and I were pretty green as far as equipment went. We tended to lay on our bellies and shoot off of pillows or boots or whatever was handy. So far as we knew, the portable bench rest did not yet exist. Despite whatever handicaps we operated under, we made a real dent in the population, out to about 300 yards. As the sun grew hotter and the smart ones went under ground, action slowed considerably. As we were contemplating quitting, I spied a big fat dog sitting up in the shade of a cottonwood, looking more like a scene from Iowa chuck hunting. It was a rare, nearly windless day, with the wind directly at our back. Jerry put the dog on the center wire, at the bottom of the Weaver scope of his 222. We had judged the distance to be about 600 yards by adding our ages and shoe sizes and multiplying by ten. This was about as good as any method we had in those days. The 50 gr. SX bullet put the dog down for certain, and again we knew luck when we saw it. Yes, luck with a good rifle and good shot behind it, making a good guess. I have seen this rifle with the same shooter behind it make several (a few) actual range finder measured 600 yard shots over the years since then. The 222 may not be a 600 yard rifle, but one thing I do know for sure. It is sure as heck way better than it is usually given credit for. On calm days we have learned it is easy to take dogs at 400 yards with a good one. And it is SO much fun to shoot. A good accurate and fragile bullet is important on the long shots.

As the years went by, equipment got better, we quit believing everything we read, and long range shooting became a bigger part of our prairie dog objective. This, of course, led to some custom rifles, a little flatter shooting cartridges and shooting from good portable benches and better rests. Our numbers in camp grew. None of us favored the loud, hard kicking calibers, and the 22/250 was pretty much a favorite, with some 6mms and 25's thrown in. We did learn that 600 yards was about the outside edge for reasonable expectation of hits in the Wyoming and South Dakota conditions. Yes, we did make a few very long shots in excess of a thousand yards, walking rounds into the dogs if they were dumb enough to sit for us. Going to excess in caliber did not seem to be the answer. One 50BMG in camp, score one broken collar bone. Not the prairie dog's.

My handloading skills have evolved to a fairly sophisticated level, primarily as a result of benchrest experience, and these have been applied to all varmint rounds. Custom rifles and big Leupold scopes have become the norm. Big, overbore capacity cases have not. The biggest thing I shoot is a muzzle braked Mauser in 250 Savage Improved. (this is the same Mauser I bought as a 243 in 1955). The blast from the muzzle brake causes my companions to yowl, and I become an outcast when I shoot it.

I have failed to learn that bigger is better. I still believe that any successful shot under ordinary conditions, beyond 600 yards, has a large component of luck, regardless of caliber.

Prairie dog shooting has many meanings to different people. There are those who shoot LOTS of prairie dogs, mostly under 200 yards, and who actually tally hits and misses. There are those that disdain any shot within reasonable range, and only count the long shots at which they hit a few, distance being the significant factor, not the number of dogs they actually hit. And then there are the vast majority of us in between. We appreciate long shots, lotsa shots and just the fun and comaraderie the sport offers. There are those who hate the prairie dog as a pest, and sincerely believe they are doing the world a favor with every shot. There are a few, admittedly the minority, who see the prairie dog as a valuable native American animal, an impor-

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42 Years In Prairie Dog Camp, And I Still Don't Know Nothin' *Continued*

tant part of the prairie ecosystem and a very prolific and valuable resource for the shooter. Not among the shooters, there are of course the extremist animal rightists, and there are the government poisoners. I know them all. Sometimes I am even dumb enough to get into "discussions" of the various aspects of the animal and the equipment and style of shooting.

All these prairie dog camps, all the shooter styles and prairie dog opinions have not done much to teach me that prairie dog shooting is anything other than recreation, a fun way to test your skills and equipment, no matter how you do it.

I personally do not enjoy the abuse of large calibers and large capacity cases. I have no objection to their use, and I do realize that long range hits can be increased with the use of fast, very high ballistic coefficient bullets. Such rifles tend to detract from the overall experience for me. If I were a young man I would probably build a .22 Middlestead and use 80 grain bullets for some long range shooting. Larger calibers with larger powder capacity, unless they possess a better ballistic coefficient, do not improve performance at long range, in my not so humble opinion. I have compared the 1 in 8 twist 22 Middlestead 80 gr bullet with the very fine, but much harder kicking 6.5mm x .284 and saw that the 22 is much flatter shooting and only slightly more wind sensitive than the 6.5.

There seems no doubt that the larger powder capacity, tight twist rifles are the wave of the future, as far as long range shooting goes. Otherwise, I have been very satisfied with the .222, 222/250 and a few other cartridges of moderate case size. See, I have done all that prairie dog shooting and still don't know any better.

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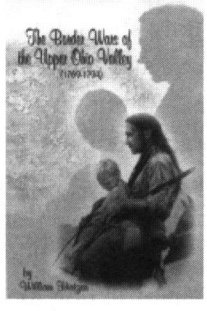

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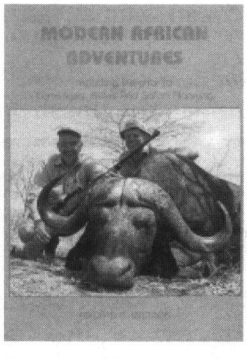

Modern African Adventures, by Ed Matunas. The author has written more than 700 magazine articles and 13 books, all dealing in some way with the shooting sports. His first love was, is, and continues to be the challenge of Africa. Ed feels that stopping charging buffalo, or being chased by a herd of elephant, are essentials in a life really worth living. He prefers to be where the weather is always warm, and where the local game is large and with a predisposition to being downright nasty. Hardcover, 288 pages. **$22.95**.

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Cape Buffalo In South Africa?

BY RONALD A. YERIAN
(Photos by Judy Yerian)

My son Matt pulled urgently on my sleeve, pointing to our left rear at a thick patch of Mopane scrub. We were in our now-familiar crouch behind our two PHs, Bobby Hansen and Albert Alberts, who were trying to spot the herd bull in the thirty-five or so increasingly nervous Cape Buffalo in the thick brush surrounding us. A jab in the back got Bobby's attention, and after a quick look at the three mostly hidden bulls, he motioned me to move forward and get into a sitting position!

"The second one has a huge boss," Bobby whispered as the herd decided that we were up to no good and began to thunder off, then "Take *him*!"

I swung the open-sighted double rifle on the shoulder of the bull as he galloped past at twenty-five yards, and pulled the front trigger as he passed through the only open spot in the surrounding vegetation. (The shot would have been impossible offhand, but the thought occurred to me that I had not practiced shooting the .470 Nitro Express from a sitting position.)

A few seconds later, the crash of a huge body hitting the ground signaled that the first of our two South African Cape Buffalo was down.

Cape Buffalo in South Africa? That would have been my question a year ago. Rightly or wrongly, many hunters are under the impression that, while a great trophy buffalo can be taken from the game farms in South Africa, the quality of the hunt cannot be compared to a hunt in, say, Mozambique, Tanzania, or Zimbabwe. Despite the fact that many of the game ranches have in excess of thirty thousand acres, the additional fact that they are fenced and managed is seen by some to lessen the mystique of the safari for Cape Buffalo.

After all, the Cape Buffalo is the quintessential African big game animal, with a reputation for toughness, tenacity, and just pure meanness that has been justly earned thousands of times over. As Matt observed, there are dozens of articles, books, and videos on buffalo with "Death" in their title, and the reference is not to the death of the buffalo!

I had discussed a possible buffalo hunt in Zimbabwe with Bobby Hansen of Bobby Hansen Safaris, Thabazimbi, SA, during the previous year, but the unrest in Zimbabwe had persuaded my wife and I to temporarily abandon such a hunt. Instead we, along with our son Matt and five other friends, booked a plains game hunt in South Africa. Bobby had promised, however, to arrange for buffalo for Matt and I.

Our travel group of seven — three hunters and four non-hunters — had agreed to split up on our arrival in Johannesburg. One hunter and his photographer friend was going to Bobby's ranch in the Limpopo Province for bowhunting while the rest of us would go to Zululand to hunt out of the beautiful lodge owned by Mark and Telani Dedekind. Matt would meet us a day later in Zululand.

The firearms carried by our group were pretty much standard for Africa. I had taken two rifles, a Merkle Model 140-2.1 side-by-side double in .470 Nitro Express and a Ruger No. 1 .375 H & H Magnum with a 2-7X Burris scope. Matt had a Sako Finnbear Deluxe left-handed bolt action in .375 H & H Magnum with a 1.75-5X Burris Safari scope

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Cape Buffalo In South Africa?

Continued

and a Browning BSS twelve gauge with twenty-six inch barrels. The third hunter carried a scoped CZ Model 550 bolt action in .375 H & H Magnum, and the fourth carried a scoped Steyr bolt action in .300 Winchester Magnum as a compliment to his compound bow. (As an aside, the hunter with the .300 Winchester Magnum insisted on using 165 grain bullets, and experienced some bullet failure on a zebra, and again on a wildebeest. He was eventually able to recover both animals, but is now a proponent of heavy premium bullets.)

Both Matt and I would be using my handloads in our .375 H & H Magnums. I would not be using my .375 H & H Magnum for buffalo, so I carried my standard "load for everything" consisting of a 300 grain Sierra boat tail, a Federal 215 primer, 77.0 grains of H4350, and a Winchester case. Matt would use two loads for buffalo, a 300 grain Swift A-Frame and a Hornady 300 grain solid over the same 77.0 grains of H4350 and the Federal 215 primer. He used nickel plated Remington cases so we could tell his loads from mine at a glance. His two loads grouped together at 100 yards from his rifle, which is a rare occurrence in my experience.

77.0 grains of H4350 for a 300 grain bullet in the .375 H & H Magnum is a conservative load by most reloading manuals, and it chronographs at 2525 fps from my Ruger No. 1. According to my Hodgdon Data Manual number 27, the chamber pressure is around 45,000 CUP. I really see no need for more velocity, and the accuracy for the above loads in both rifles is around the inch and a half mark, and frequently better.

I used factory Federal Premium Safari cartridges with 500 grain Trophy Bonded Bear Claw bullets for my soft point load in the .470 Nitro Express, and handloaded 500 grain Woodleigh solids for the second barrel. I used Norma brass and Federal 215 primers, and a moderate load of H4350 to match the point-of-aim of the handloads to the factory cartridges. There is enough variation in suggested loads for the .470 NE that I am not going to add to the confusion by giving the load that I settled on. (***Disclaimer: No suggestion as to the safety or suitability of the loads given in this article in other rifles is expressed or implied by the author or publisher of this magazine.***)

Author with his South African Cape Buffalo. He looks tired because he is almost at the end of a twenty mile, eighteen hour day.

The ranches that we hunted in Zululand were lush and green, despite the late August date, and filled with game. If you by chance viewed the movie *I Dreamed of Africa,* then you have an idea of the absolutely breathtaking land in which we were hunting. The first morning out, Bobby, myself, and two trackers made a stalk to look over a small herd of buffalo, but found only young bulls, cows, and calves. We spent the rest of the day looking for three old bulls known to frequent a dry riverbed.

Our son Matt arrived that evening, eager to go buffalo hunting. I badly wanted a Nyala, so we agreed to spend the next morning hunting them. Matt, despite his jet lag, was up at four-thirty with the rest of us, and went along for the hunt. I was able to drop a nice twenty-eight inch Nyala with a hundred yard shot, using the Ruger .375 H&H, as he postured and displayed with other males.

Nyala hunting is not buffalo hunting, however, and that afternoon we resumed our hunt for a "Trophy Bull". Late in the afternoon Bobby and Matt made a careful stalk on two buffalo, which turned out to be young bulls.

The next day started slowly, except for a minor dispute with a

young bull elephant concerning use of the road. Shortly before noon Bobby jammed the brakes on the safari truck and told Matt to get out and chamber a cartridge. Normally we would not shoot common game while pursuing buffalo, but a Cape Bushbuck is not "common". Bobby saw one ghost into a patch of reeds, and when the trackers started in two rams came streaking out. The second one out was best, and Matt folded it with a nice running shot. Part of Bobby's elation was over the shot, as anyone who can hit a running Bushbuck at one hundred yards with a .375 H & H should be able to hit a Cape Buffalo at handshaking distance.

On returning to the lodge we found the other member of our party had been having great shooting, and had taken a fifty-three inch Kudu, a twenty-eight inch Nyala, and a fine Blue Wildebeest. By any measure, this was shaping up as successful Safari. Still, something was not quite right. We had hunted with Bobby before, and both Matt and I observed that his heart was not really into this buffalo hunt. He had been making calls on his cell phone, and seemed agitated that he could not make connections with someone.

We went back out that afternoon, and again found a small herd of buffalo. To the amazement of the old tracker who accompanied us, Bobby was able to call the herd to within fifty yards by making a sound like a buffalo calf! If you like living on pure adrenaline, try hunching down behind a bit of brush while a madman next to you is sounding like a baby buffalo being strangled by a lion. It is one thing to stalk a herd of unknowing buffalo, and quite another to have a herd stalking you, trying to single out the cause of discomfort to one of their babies. They thankfully rumbled off, apparently satisfied that no member of their herd was being eaten.

Bobby seemed unusually jubilant when he joined us for dinner and drinks that evening. He had, it seemed, finally reached his old chum Albert Alberts, and learned that the powers that be in the South African bureaucracy had at long last notified Albert that he had been granted a quota of Cape Buffalo in the fabled Lataba area bordering Kruger Park. Wonder of wonders, he also had no clients for the next week or so!

The choice, in a nutshell, was this — we could stay and hunt in Zululand, where we would almost certainly collect trophy bulls on the game ranch, or we could go to Lataba and hunt the wild buffalo herds that wander in and out of Kruger Park, with no guarantee. We would also be trading in relatively short stalks for long, body-pounding chases through dense Mopane brush. Bobby said that he would notify Albert of our decision, but I noticed that he did not rush to the phone. His bags were already packed.

We were breakfasted and out of camp by sunrise. The long ride from Zululand to the Lataba area gave Matt and I plenty of time to reflect on our decision. It was evident that Bobby did not have to do this. In fact, the trip would cost him money, as we found out later that the price he had quoted us for buffalo was what he had to pay Albert! In the final analysis, it is a rare thing to discover a PH that has this level of respect for his quarry, his clients, his reputation, and the quality of the African experience. The all day trip from Zululand to the Northern Transvaal was delightful, however, and Judy kept Bobby busy answering questions ranging from the colorful Nguni cattle to the uniformed school children walking along the road.

We finally met up with Albert, and pulled into camp at dusk. "Camp" was the Stonehaven Lodge, an almost-new, "upscale" facility catering mainly to bow hunters and, I suspect, non-hunting spouses who wish to do "Big Five" photo trips into nearby Kruger Park.

The next day we left the Lodge before dawn, and drove to the Lataba Game Reserve. Albert, with the casual manner that PHs assume when they are serious, asked about our firearms and ammunition. He seemed satisfied that we were properly armed. Just for the record, Bobby was carrying his scoped Brno 602 in .375 H & H Magnum (with the infamous "backward" safety), and Albert was carrying a Merkle double in 9.3x74R. Both were devoid of bluing and stock finish, and seemed merely an extension of each PH.

The Reserve, formerly in private ownership, had been "claimed" and is presently being managed by the South African Government. Albert checked in at the main "office", and instructed Bobby to pick up Samson, the game scout and tracker for the reserve, at his dwelling a few kilometers away. Samson, a holdover from the days of private ownership, was a breath of fresh air at Lataba. Dressed in a freshly laundered and starched government uniform, with polished boots, he was the ultimate game scout.

With everything in order, we finally began our hunt. The roads were not in good repair, and many

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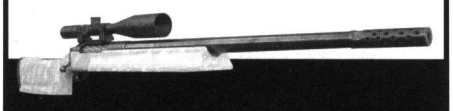

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Cape Buffalo In South Africa?

Continued

times we either had to find new rights-of-way or stop and remove tree branches so we could proceed. We drove through burnt-over areas, some still smoldering, and wondered whether the fires were caused by lightning or by poachers. Here there were no fences, no "no hunting" areas marked by the Ranch Biologist, no caretaker to tell us where the buffalo usually spent their afternoons — nothing but tens of thousands of acres of Mopane. Only Albert and Samson's knowledge of waterholes, terrain, and buffalo would help us guess where the buffalo might be.

Albert guessed right that first morning. Shortly after eight o'clock we were studying the tracks of a herd of buffalo. The still-warm dung indicated that they were not too far ahead, and we started after them, leaving Judy and two trackers with the truck. The shortness of breath, tight chest, sweaty palms, and grim determination that I had experienced on my first stalk back in Zululand, but eventually lost, came back with a vengeance. We were hunting buffalo, not going out to shoot a buffalo.

Two and a half hours and five miles later, the sweat and heavy breathing were genuine. We finally caught up with the herd when something, perhaps our scent on an errant breeze, spooked them. They pounded off, only to stop a couple of hundred yards ahead, milling around at the base of a steep bank. We ran, then, through the thorns and the dry grass and the underbrush, straight toward the herd. We burst out of the vegetation about thirty-five yards from the rear of the herd, and watched as the buffalo lunged up the steep bank through a cut. To the disappointment of the PHs, none of the bulls in the rear guard wore impressive headgear.

Our spirits were up as we made our way back to the safari truck. I had shown that I could keep up with the PHs and my twenty-seven year old son, at least in anything but a flat-out sprint. We had carried our own rifles, and our well-broken-in boots had not produced blisters. We had done everything right with a herd of fifty or so buffalo, but the trophies that we were seeking had not been there.

After lunch the PHs decided to swing down to the Lataba River and parallel it for awhile to see where buffalo had been watering. About two o'clock we saw where a herd had left the river and moved into the scrub for their noonday siesta. We managed, after an hour of tracking and stalking, to work our way into the fringe of the resting herd.

This time we were successful! As I related at the start, my first 500 grain soft point had dumped the bull within forty yards. We heard him hit the ground, but we had not heard the "death bellow". After ten minutes, we moved cautiously forward, a step at a time, rifles ready. At twenty yards we spotted the bull, down and unmoving in a small depression, and, as instructed, I put a solid and another soft point into his shoulder. At ten yards I was again instructed to give him a solid, but he was through.

My buffalo did not have a wide spread, but had huge, sixteen inch bosses that swept low to his ears before curling back up to unbroken points. A true South African Cape Buffalo! Peter Hathaway Capstick, perhaps the most widely-read African author of the last twenty years, had this to say about South

African buffalo in his book *Safari: The Last Adventure*:

"When I had a chance to hunt the Lataba region of the northeastern Transvaal, near the Kruger Park, I immediately noticed that these buff looked different, in fact right out of the old books. Despite the fact that there are huge differences in individual buffalo horns, the South African variety seems clearly to favor a massive boss, which is split in the center like the part of an old-fashioned barbershop quartet singer's hair, and with a much shorter or narrower spread."

We didn't dwell on it at the time. Both Bobby and Albert thought that they had glimpsed a better bull in the herd, and decided to make a "short" stalk. Youth and enthusiasm! At any rate, the two PHs and Matt disappeared on the tracks. Samson and I followed for a bit, then decided to wait until we heard shots or until they returned. A lion coughed in the distance, warming up for the night's hunt, and I hoped he had not found my buffalo. I had not heard a lion in South Africa before! We continued to walk, always, it seemed to me, away from the safari truck, but heard nothing to indicate either success or failure. Daylight turned to dusk, and the short African dusk turned quickly to darkness. A fine full moon came up, giving plenty of light for walking, but the coughs of the lions and the fact that we were stepping over elephant tracks kept me at full alert.

At a little after six Samson and I heard an inquiring shout in the distance. A full hour after nightfall we were united again, and after another hour back at the safari truck to greet a very relieved wife. Judy had spent a very interesting six hours in the middle of Africa waiting, as she said, for a pack of boys to remember where they had left her. She at least had, she sighed, the lions to serenade her.

Getting to the buffalo involved two hours of hacking our way through Mopane scrub and thorn trees of various degrees of nastiness. The trackers would not get too far ahead of the truck, as they too had heard the lions roaring.

After a few hasty pictures we finally loaded the buffalo and found our way to the Reserve's skinning shed. We left the reserve shortly before midnight, jammed into Bobby's truck, and somewhere between the Lataba Reserve and Stonehaven Lodge I turned fifty-eight years old.

We slept in a little the next morning. Once again Albert had to fill out papers, and it was ten o'clock before we started searching for buffalo. About noon Bobby spotted a single black speck on a distant hill, and careful glassing revealed a large herd. The two PHs, Matt, and Samson decided to take a look.

Three hours later they came back — tired, dusty, and thirsty. Samson had stayed to keep an eye on the herd, which turned out to contain about six hundred buffalo! The buffalo were scattered throughout the scrub, and sorting out a shootable bull without starting a stampede was proving to be difficult. After a hurried drink and a quick candy bar, they returned to the hunt, taking a couple of bottles of water for Samson. A bit later we heard a rumbling in the direction of the herd, and saw clouds of dust rise up. Judy and I were watching a hundred buffalo lumber up a draw when three hunters appeared through the dust, running parallel to the buffalo, trying to get into position for a shot. Some things a mother should not watch. The hunters returned, defeated for the moment, and decided to spend the last hour of daylight looking for buffalo sign that we could hopefully follow the next morning.

Continued on next page

Matt Yerian with a nice 40-inch South African Cape Buffalo. Note the left handed Sako rifle.

Cape Buffalo In South Africa?

Continued

We were out of camp by five the next morning. Judy would stay behind to tour Kruger, and we were rested and well fed and determined that Matt would take a trophy bull this day. Albert finally seemed to accept the irreverent banter between Matt and Bobby. We could only shrug as Matt stated, "Gee, Bobby, I don't really think that I want to shoot a buffalo that just came out of a park!"

It was just as well that we had a sense of humor that day. We couldn't find the small four or five bull group of "dugga bulls" that turn up so often in Cape Buffalo tales and videos, so we returned to tracking the smaller herds. The weather had been getting hotter each day, and each frustrating stalk only fueled the determination to get a trophy bull. We made four grueling stalks, and each time the buffalo either winded us or no shootable bulls were in evidence.

Dinner was a little quieter that evening. The heat and the long, unsuccessful stalks were taking a toll. Our failure to find any lone bulls or "dugga bull" groups made an easy hunt a remote possibility. Albert and Bobby reluctantly agreed that the best bet would be to hunt the larger herds and try to sort out a bull for Matt.

The next morning we again found the herd of six hundred. Bobby, Albert, and Matt would once more go in alone. I really wanted to be there when Matt took his buffalo, but three move more quickly and more quietly than four. After an hour or so I heard the rumble and saw the dust and knew that once again the stalk had not gone well.

This time, however, the rumble had not been a bad thing. Something had alerted a group of eighty or so buffalo to the right of the main herd, and they vacated the premises, only to stop after a couple of hundred yards, unsure exactly why they had spooked. Matt and Bobby stayed put, and Albert circled and moved upwind. They could see the buffalo stretch out like a line of Zulu warriors, then stampede back at them.

Matt took his Cape Buffalo at nine yards. Matt's first shot turned him, and Bobby joined in shooting with Matt until the buffalo crumpled. The rest of the herd thundered past, and only silence remained. I couldn't hear Bobby's whoop of joy, but I imagined it. Matt and Bobby had done the job with their bolt action .375 H & H Magnum's. The buffalo, along with eighty others, was running at them, and while it may not technically have been a charge, Matt stood his ground and took him fairly. That is, after all, why one hunts Cape Buffalo.

The bull measured a solid forty inches, a splendid bull for South Africa. We dropped him off at the Reserve's skinning shed, feeling a little sad to be leaving Albert, Samson, and the Lataba Reserve. We went back to Stonehaven and loaded our gear, then swung back for one last look at Matt's buffalo. It was essentially gone — divided up among the Reserve's staff and the locals, "boiled" to make the pieces of meat legal for transport off the Reserve, and on its way to the cooking pots.

Time is money on a safari, and we were soon on our way to Thabazimbi, where we would meet up with our group, to share stories and to hunt together again. The ladies would come back from Kruger Park, and would swear that, after riding in a hunting vehicle, parks are a bit of a disappointment. There would be guinea fowl and doves, and a lovely Limpopo Bushbuck, but for Matt and I the safari had already been a success.

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BY FRED STUTZENBERGER

Maladjusted sights can cause both frustration and embarrassment.

When a new set of iron sights is installed on a rifle barrel, their position must be adjusted so that their alignment is coincident with the bullet's point of impact at a given distance. That process is usually called "sighting in". Sighting in is inherently more tedious with any action (such as lever or slide actions) that precludes a direct view through the bore to the target. An action from which the bolt can be removed to provide an unobstructed view of the bore allows the shooter to speed the sight adjustment process by comparing the bore picture to the sight picture.

A variety of sophisticated instruments has been marketed to simplify sighting in. These instruments take the form of optical or laser-based chamber inserts that cost from $50 to $200. Since these instruments cannot be used with some types of actions, a system that aligns the sights with the exterior surface of the barrel provides a satisfactory substitute. This article describes an effective and economical (essentially no-cost) jig that can be used at home for the initial alignment of iron sights on any octagonal barrel. It would be particularly useful for old or reproduction lever or slide actions, as well as for muzzleloaders. Use of this system at home will bring sights into close enough alignment to eliminate the wasted "off paper" shots fired later at the range.

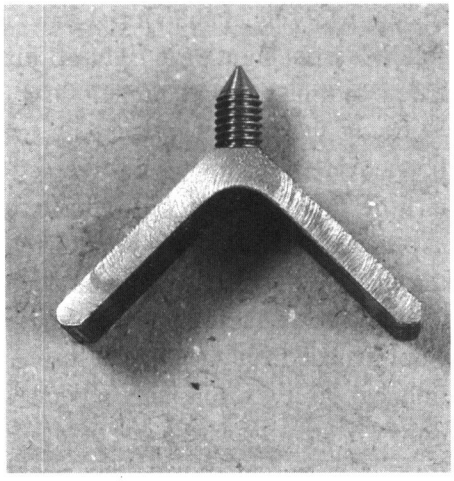

Fig. 1. This jig will center on the top of any octagon barrel.

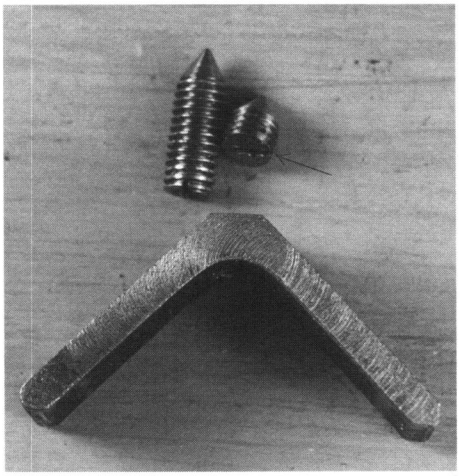

Fig. 2. Two pointer screws of different lengths were made to accommodate open or elevated aperture sights. Note that the flat ends are slotted to provide easy exchange and adjustment.

The sight adjustment jig is made from a short section of 1" x 1" x 1/8" angle iron. Scraps of angle iron can be had for free from the scrap bin of machine/welding shops. A 1/2" length is plenty, but the length is not critical. It just needs to be long enough to stabilize on the barrel surface. The 90° included angle will rest squarely on the top of an octagon barrel. A pointed section of #10 x 32 tpi screw is threaded through the corner of the angle iron to act as a pointer (Fig. 1). Since this jig is used with both open and raised aperture sights, two pointers of different lengths were made to accommodate the full range of heights (Fig. 2). The shorter of the two pointers is appro-

Continued on next page

Sight Alignment Jig

Continued

priate for the standard commercial open sights. The longer screw will work with the higher hooded aperture target sights. The screws are slotted at the back end to allow adjustment for gauging relative heights between front and rear sights. If repetitive measurements are to be made, it would be advisable to turn a nut down on the threaded pointer to lock it in position.

A length of fine cotton or polyester sewing thread is pulled over the middle of the front sight blade (Fig. 3). Fine monofilament fishing leader or dental floss will work also, but they are slicker and a little more difficult to tape down on the top barrel flat to keep them taut between sights. The other end of the thread is centered in the rear sight notch. With the jig in place near the front sight, the horizontal distance between the pointer and the stretched thread can be easily measured using the depth gauge of a dial caliper (a machinist's rule marked in 32nds can also be used, but is considerably less accurate). The jig is then placed on the barrel as near the rear sight notch as possible and another measurement of horizontal divergence is taken. If the two measurements are the same, the sights are aligned horizontally relative to the barrel surface even though they might not be centered on the top barrel flat. Of course, final adjustment will have to be made at the range. Most octagon barrels today have been milled between centers so that the exterior and the bore are concentric. Obviously, any run-out between the two will require compensation by sight adjustment. When installing a new set of iron sights, remember that it is not wise to drive both sights to center in the dovetail slot and then attempt alignment. If you have to back up one or other of the sights several times, it could loosen in the slot (I saw a fellow's front sight drop right off his rifle one time during competition).

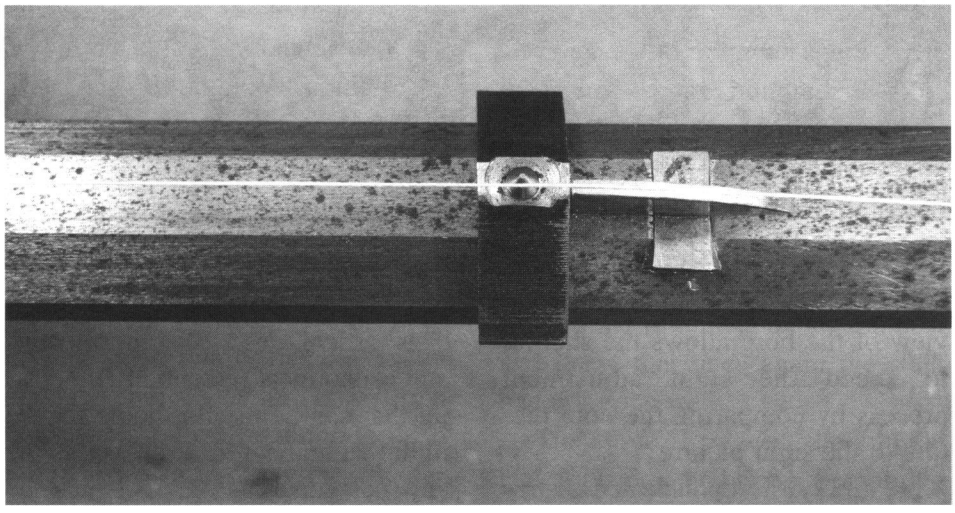

Fig. 3. A sewing thread is pulled over the front sight blade and taped to the top flat of the barrel to indicate deviation from true center on the barrel flat.

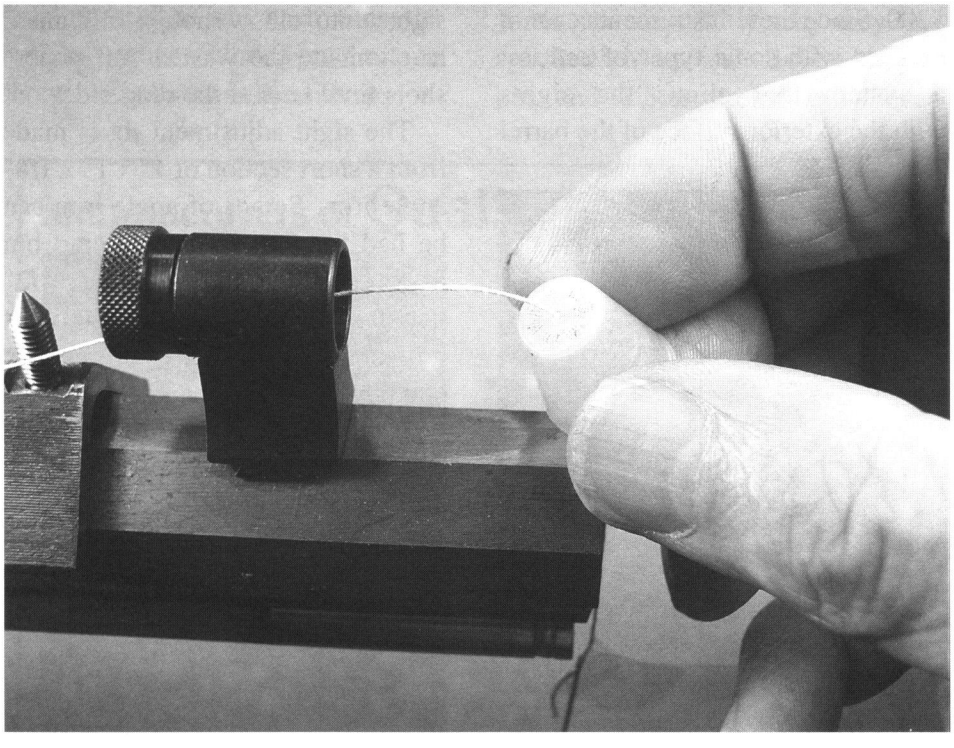

Fig. 4. The disposable plastic insulator cap from the terminal of a 6-volt lantern battery can be used as a centering device in a hooded aperture sight. Pull the thread through the center nib and knot it several times to keep it from slipping out.

Using the sight alignment jig for hooded aperture target sights requires a little more work, but no more expense. The thread must be centered through the target ring in a hooded front sight. A simple centering device can be made from the conical insulation cap off a six volt lantern battery (you've thrown away a lot of those little plastic caps over the years whenever you replaced your lantern batteries). There is a little nib on the

center of the cap that can be easily pierced with a threaded needle (Fig. 4). The conical cap is a nice wedge fit in the front of the aperture sight hood (Fig. 5). The other end is threaded through the tang aperture sight (Fig. 6). The sight alignment jig can then be used as described earlier for open sights.

The use of the adjustable screw pointer for elevation adjustment is simple for straight-sided octagon barrels, since the barrel wall is constant thickness. For tapered barrels, the jig can be shimmed up with shim stock at a thickness that makes up *one half* the difference between the barrel diameters at the front and rear sight. For example, a barrel with an across-the-flats diameter of 0.875" at the rear sight and a diameter of 0.775" at the front sight would have to be shimmed up 0.050" to raise the jig so that its tip stays concentric with the bore at the positions of both sights. Shim stock can be purchased at the local auto parts store or from Brownell's (800-741-0015). A sliver of tin can, aluminum gutter or roofing flashing material are good makeshift shim materials if you have an accurate method (such as dial caliper) to determine how much shim is needed to raise the alignment jig to its proper height. Of course, elevation adjustments are made to bring sight alignment coincident to the bullet's trajectory at the precise point on the path if its arc where it strikes the target. Sights aligned precisely with the bore will have to be adjusted lower than the rear relative to the bore.

The crude simplicity of this method belies its effectiveness. One of many shooting buddies out in the Texas panhandle used the string method to align his newly-installed aperture front and rear target sights accurately enough to get into the black with the first shot. The economy if this simple sight alignment jig is magnified by orders of magnitude when used with a rifle devouring expensive cartridges like the 40-90 Sharps straight or the 425 Westley Richards (empty brass for these old venerables costs several dollars each. When you have only a few cartridges for your golden oldie, you don't want to waste a one!

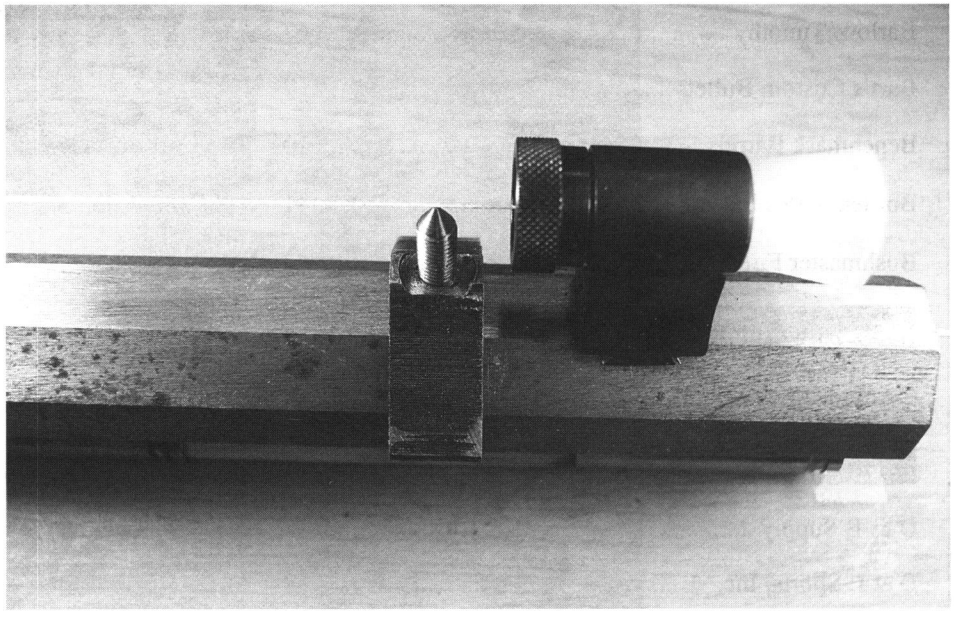

Fig. 5. When the thread is pulled taut, the cap will center the thread through the aperture in the hooded sight.

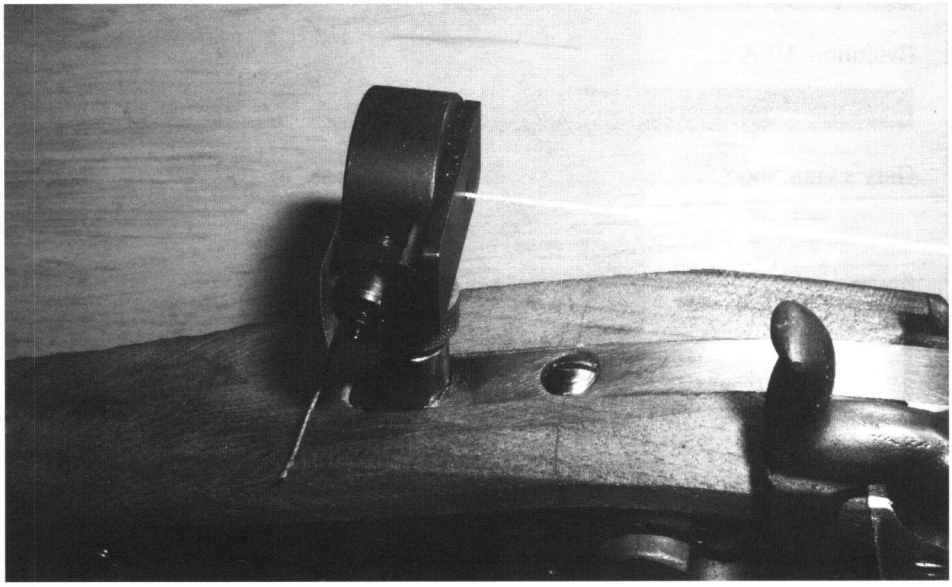

Fig. 6. The thread is inserted through the aperture of the rear sight and its end secured with a piece of duct tape.

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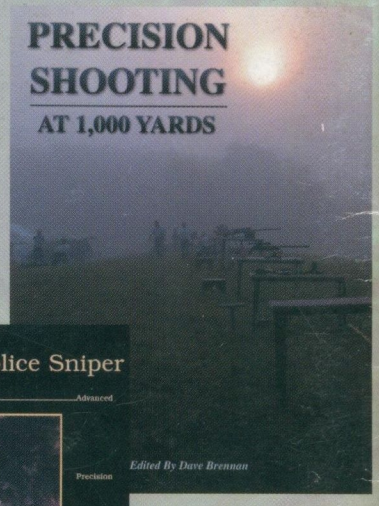

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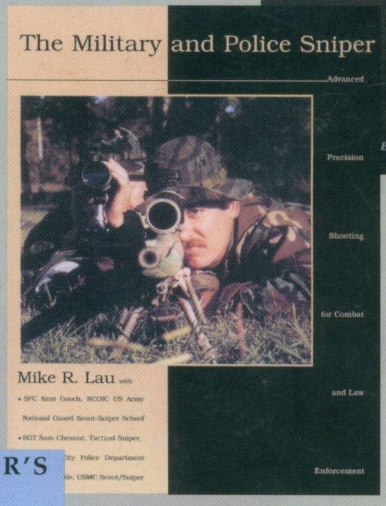

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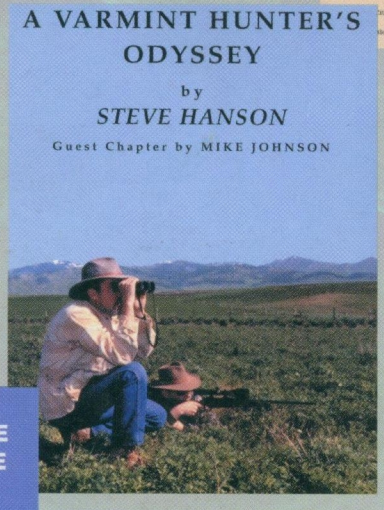

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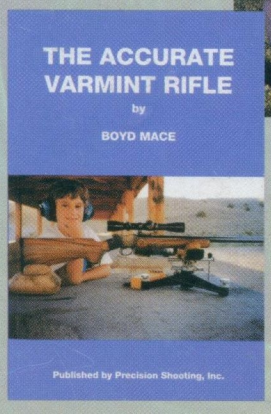

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